

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	45843	mitsumoto.inv. or nakamura.inv. or (fuji adj photo adj film).as. or (fujifilm adj corporation).as. or (fujifilm adj holdings adj corporation).as.	US-PGPUB; USPAT	OR	OFF	2007/04/16 10:42
L2	2	1 and ((undercoat\$4 or interlayer) with (\$5polymerizable or \$5polymerisable) with ((ethylene adj oxide) or epoxy))	US-PGPUB; USPAT	OR	OFF	2007/04/16 10:44
L3	0	2 and cyanine	US-PGPUB; USPAT	OR	OFF	2007/04/16 10:48
L4	7003	430/271.1.ccls. or 430/275.1.ccls. or 430/276.1.ccls. or 430/277.1.ccls. or 430/278.1.ccls. or 430/279.1.ccls. or 430/280.1.ccls. or 430/281.1.ccls. or 430/944.ccls. or 430/302.ccls.	US-PGPUB; USPAT	OR	OFF	2007/04/16 10:50
L5	643	4 and (cyanine) and infrared and ((\$5polymerizable or \$5polymerisable) with (compound or monomer))	US-PGPUB; USPAT	OR	OFF	2007/04/16 11:06
L6	580	5 and (\$5initiator\$1 or (radical with generat\$5))	US-PGPUB; USPAT	OR	OFF	2007/04/16 10:51
L7	1800	(undercoat\$4 or interlayer or underlayer or (subbing adj layer) or (bottom adj layer) or (bottom adj coating)) with ((ethylene adj oxide) or epoxy)	US-PGPUB; USPAT	OR	OFF	2007/04/16 11:07
L8	44	6 and 7	US-PGPUB; USPAT	OR	OFF	2007/04/16 10:54
L9	63	(cyanine) and infrared and ((\$5polymerizable or \$5polymerisable) with (compound or monomer))	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/16 11:07
L10	1295	(undercoat\$4 or interlayer or underlayer or (subbing adj layer) or (bottom adj layer) or (bottom adj coating)) with ((ethylene adj oxide) or epoxy)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/16 11:08
L11	0	9 and 10	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/16 11:07

EAST Search History

L12	89	(cyanine) and infrared and (\$5polymerizable or \$5polymerisable)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/16 11:08
L13	0	12 and 10	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/16 11:08
L14	62	((undercoat\$4 or interlayer or underlayer or (subbing adj layer) or (bottom adj layer) or (bottom adj coating)) same ((ethylene adj oxide) or epoxy)).clm.	US-PGPUB	OR	OFF	2007/04/16 11:09
L15	1	14 and cyanine.clm. and infrared. clm.	US-PGPUB	OR	OFF	2007/04/16 11:09



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22304-1450
www.uspto.gov



Bib Data Sheet

CONFIRMATION NO. 1240

SERIAL NUMBER 10/809,323	FILING DATE 03/26/2004 RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. 1110-0318P
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APPLICANTS

Tomoyoshi Mitsumoto, Shizuoka, JAPAN;
Ippai Nakamura, Shizuoka, JAPAN;

**** CONTINUING DATA *******
None SJL

**** FOREIGN APPLICATIONS *******
JAPAN 2003-085166 03/26/2003 SJL
JAPAN 2003-327659 09/19/2003
JAPAN 2003-341197 09/30/2003

IF REQUIRED, FOREIGN FILING LICENSE GRANTED
** 06/08/2004

Foreign Priority claimed 35 USC 119 (a-d) conditions met Verified and Acknowledged	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Met after Allowed by Examiner's Signature Initials	STATE OR COUNTRY JAPAN	SHEETS DRAWING 0	TOTAL CLAIMS 17	INDEPENDENT CLAIMS 2
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ADDRESS
02292
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA
22040-0747

TITLE
Lithographic printing method and presensitized plate

FILING FEE	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT	<input type="checkbox"/> All Fees
		<input type="checkbox"/> 1.16 Fees (Filing)
		<input type="checkbox"/> 1.17 Fees (Processing Ext. of time)

#4

Access DB# 221487

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sim J. Lee Examiner #: 76060 Date: 4-4-07
Art Unit: 1752 Phone Number 302-1333 Serial Number: 10/809,323
Mail Box and Bldg/Room Location: 9C15 Results Format Preferred (circle): PAPER DISK E-MAIL
(Pen)

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Plz. See Bib. SCIENTIFIC REFERENCE B.D.
Sci & Tech Inf. Cntr

Inventors (please provide full names): _____ APR 10 REC'D

Earliest Priority Filing Date: _____ Pat. & T.M. Office

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Plz. search for the compound of formula (1)
in cl. #2

SEARCH
NOTES



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22304-1450
www.uspto.gov



Bib Data Sheet

CONFIRMATION NO. 1240

SERIAL NUMBER 10/809,323	FILING DATE 03/26/2004 RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. 1110-0318P	
APPLICANTS Tomoyoshi Mitsumoto, Shizuoka, JAPAN; Ippei Nakamura, Shizuoka, JAPAN; ** CONTINUING DATA ***** None SJL ** FOREIGN APPLICATIONS ***** JAPAN 2003-085166 03/26/2003 SJL JAPAN 2003-327659 09/19/2003 JAPAN 2003-341197 09/30/2003 IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 06/08/2004					
Foreign Priority claimed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after met Verified and <input checked="" type="checkbox"/> Allowance <input checked="" type="checkbox"/> SJL Acknowledged <input checked="" type="checkbox"/> Examiner's Signature Initials		STATE OR COUNTRY JAPAN	SHEETS DRAWING 0	TOTAL CLAIMS 17	INDEPENDENT CLAIMS 2
ADDRESS 02292 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747					
TITLE Lithographic printing method and presensitized plate					
FILING FEE	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time)		

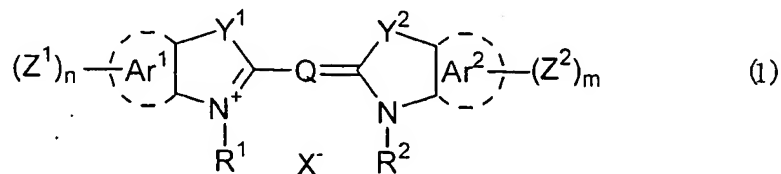
AMENDED CLAIM SET:

1. (previously presented) A presensitized plate comprised of a support having thereon, in order:

an undercoat layer containing a compound having a polymerizable group on the molecule, wherein the compound having a polymerizable group on the molecule also has on the molecule an ethylene oxide group; and

an image recording layer which includes: an infrared absorber (A) that is a cyanine dye having at least one fused ring comprised of a nitrogen-containing heterocycle in combination with an aromatic ring or a second heterocycle, and having on the aromatic ring or second heterocycle an electron-withdrawing group or a heavy atom-containing group, a radical generator (B), and a radical-polymerizable compound (C), and which is removable with printing ink and/or dampening water.

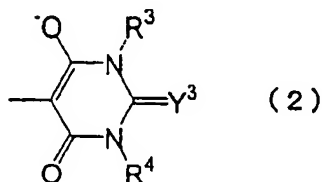
2. (previously presented) The presensitized plate according to claim 1, wherein the infrared absorber (A) is a compound of formula (1) below:



wherein in the formula (1), R¹ and R² are each independently a hydrocarbon group of up to 20 carbons which may be substituted, Ar¹ and Ar² are each independently an aromatic hydrocarbon

group or a heterocyclic group which may be substituted, Y^1 and Y^2 are each independently a sulfur atom, an oxygen atom, a selenium atom, a dialkylmethylene group of up to 12 carbons or a $-CH=CH-$ group, Z^1 and Z^2 are each substituents selected from the group consisting of hydrocarbon groups, oxy groups, electron-withdrawing groups and heavy atom-containing groups, at least one of Z^1 and Z^2 being an electron-withdrawing group or a heavy atom-containing group, wherein the letters n and m each represent 0 or a higher integer, with the proviso that the sum of n and m is at least 1,

Q is a pentamethine group or a heptamethine group which may be substituted with a member selected from the group consisting of alkoxy, aryloxy, alkylthio, arylthio, dialkylamino, diarylamino, halogen atoms, alkyl, aralkyl, cycloalkyl, aryl, oxy, iminium bases and substituents of formula (2) below; or may have a cyclohexene, cyclopentene or cyclobutene ring containing three connected methine chains,



wherein in the formula (2), R^3 and R^4 are each independently a hydrogen atom, an alkyl of 1 to 8 carbons or an aryl of 6 to 10 carbons; and Y^3 is an oxygen atom or a sulfur atom, and

X^- is a counteranion that exists in cases where charge neutralization is required.

3. -- 11. (cancelled)

=> d que 144

L2 8 SEA FILE=REGISTRY ABB=ON , PLU=ON (110992-87-5/BI OR
 139361-79-8/BI OR 183745-01-9/BI OR 197087-00-6/BI OR
 259133-57-8/BI OR 442548-17-6/BI OR 442548-19-8/BI OR
 869557-67-5/BI)
 L3 SCR 2043
 L5 SCR 1841 AND 1993 AND 2040
 L9 STR

Hy~~~~G1~~~~Hy
 1 2 3

Ak~Cb~Ak
 @4 5 @6

Ak~O~Ak
 @7 8 @9

Ak @10 A @14

Ak~G2~Ak
 @11 12 @13

VAR G1=10/4-1 6-3/7-1 9-3/11-1 13-3

REP G2=(1-10) 14

NODE ATTRIBUTES:

NSPEC IS RC AT 14

DEFAULT MLEVEL IS ATOM

GGCAT IS PCY UNS AT 1

GGCAT IS PCY UNS AT 3

GGCAT IS UNS AT 4

GGCAT IS UNS AT 6

GGCAT IS UNS AT 7

GGCAT IS UNS AT 9

GGCAT IS UNS AT 10

GGCAT IS UNS AT 11

GGCAT IS UNS AT 13

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 1

ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 3

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L12 164 SEA FILE=REGISTRY SSS FUL L9 AND L3 AND L5

L17 SCR 1993 AND 2040

L22 STR

Hy~~~~G1~~~~Hy
 1 2 3

Ak~Cb~Ak
 @4 5 @6

Ak @10

VAR G1=10/4-1 6-3

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS PCY UNS AT 1

GGCAT IS PCY UNS AT 3

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 1

ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 3

ECOUNT IS M5 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L25 210 SEA FILE=REGISTRY SSS FUL L22 AND L3 AND L17
L29 259 SEA FILE=REGISTRY ABB=ON PLU=ON L12 OR L25
L30 96 SEA FILE=HCAPLUS ABB=ON PLU=ON L29
L31 58 SEA FILE=HCAPLUS ABB=ON PLU=ON L2
L32 154 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 OR L31
L39 49 SEA FILE=HCAPLUS ABB=ON PLU=ON L31 AND (1840-2003)/PRY,A
Y,PY
L40 134 SEA FILE=HCAPLUS ABB=ON PLU=ON MITSUMOTO, T?/AU
L41 2095 SEA FILE=HCAPLUS ABB=ON PLU=ON NAKAMURA, I?/AU
L42 6 SEA FILE=HCAPLUS ABB=ON PLU=ON (L40 OR L41) AND L32
L44 43 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 NOT L42

=> sel hit rn 1-
E1 THROUGH E6 ASSIGNED

=> d l44 1-43 ibib ed abs hitstr hitind

L44 ANSWER 1 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:408526 HCAPLUS

DOCUMENT NUMBER: 142:438732

TITLE: Lithographic plates showing high sensitivity for
direct IR-laser platemaking and good printability
and yellow light-resistant photopolymerizable
compositions therefor

INVENTOR(S): Kakino, Ryuki; Kunita, Kazuto; Fujimaki, Kazuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 86 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005122038	A	20050512	JP 2003-359350	20031020

PRIORITY APPLN. INFO.: JP 2003-359350 20031020

OTHER SOURCE(S): MARPAT 142:438732

ED Entered STN: 13 May 2005

AB The compns. contain (A) ZYXCR1R2CO2H (R1, R2 = H, monovalent
substituent; X = O, S, SO2, NR3; R3 = H, monovalent substituent other
than aromatic; Y = divalent linking group containing no aromatic ring in main
chain; Z = aromatic) or WXC1R2CO2H (R1, R2, X = same as above; W = H,
same as R3), (B) polymerizable compds., (C) radical initiators, and
optionally (D) IR absorbers. Also claimed are lithog. plates having
recording layers of the above compns. on supports.

IT 110992-87-5

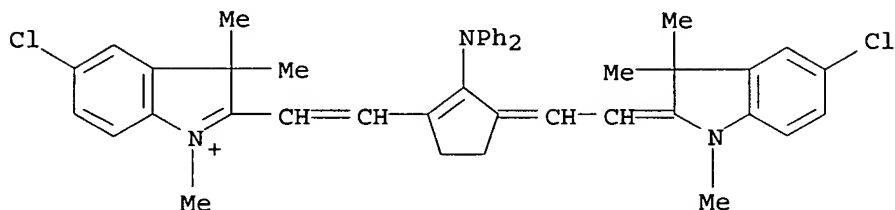
(IR absorbers; yellow light-resistant photopolymerizable compns.
for lithog. plates with high sensitivity for direct IR-laser
platemaking and good printability)

RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-
2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-
yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX
NAME)

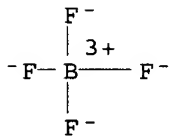
CM 1

CRN 110992-86-4
CMF C43 H42 Cl2 N3



CM 2

CRN 14874-70-5
CMF B F4
CCI CCS



IC ICM G03F007-004
ICS C08F002-44; G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 110992-66-0 **110992-87-5**
(IR absorbers; yellow light-resistant photopolymerizable compns. for lithog. plates with high sensitivity for direct IR-laser platemaking and good printability)

L44 ANSWER 2 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:346225 HCAPLUS

DOCUMENT NUMBER: 142:420084

TITLE: Photopolymerizable image recording material and manufacture of lithographic printing master plate

INVENTOR(S): Murota, Yasufumi; Goto, Takahiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005107388	A	20050421	JP 2003-343372	20031001

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PRIORITY APPLN. INFO.:

JP 2003-343372

20031001

ED Entered STN: 22 Apr 2005

AB Disclosed is a photopolymerizable image recording material comprising on a support a photopolymerizable layer made from (A) a compound having the maximum absorption in 650-1,300 nm, (B) an aryl radical generating agent, (C) a polymerizable compound, and an O₂ blocking layer satisfying $0.2 \leq A \leq 20$ (mL/m²·day) (A = O₂ permeability at 25° under 1 atmospheric). The O₂ blocking layer may be made from PVA and PVP or a derivative thereof at a ratio $2 \leq \text{PVA/PVP} \leq 10$.

IT 442548-17-6

(IR absorber; photopolymerizable image recording material for lithog. printing master plate)

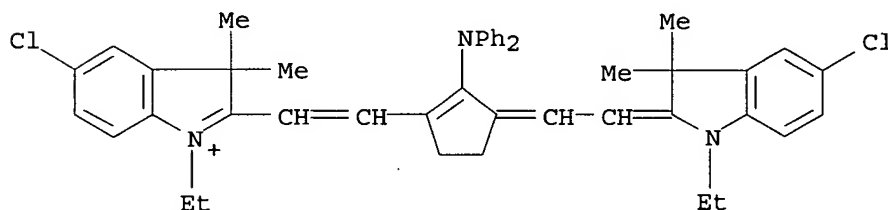
RN 442548-17-6 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 162717-38-6

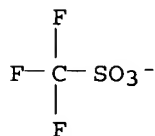
CMF C45 H46 Cl2 N3



CM 2

CRN 37181-39-8

CMF C F3 O3 S



IC ICM G03F007-11

ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 183745-11-1 442548-17-6 669714-75-4

(IR absorber; photopolymerizable image recording material for lithog. printing master plate)

L44 ANSWER 3 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:212591 HCAPLUS

DOCUMENT NUMBER: 142:306466

TITLE: Photopolymerizable photoimaging composition and negatively-working directly-imaging lithographic printing plate precursors therefrom
INVENTOR(S): Fujimaki, Kazuhiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005062482	A	20050310	JP 2003-292530	20030812

PRIORITY APPLN. INFO.: JP 2003-292530 20030812
<--

ED Entered STN: 10 Mar 2005

AB The title composition contains a radical polymerization initiator, a radical polymerization co-initiator of ± 1.10 V oxidation potential, an IR-absorber, and radically polymerizable compds. The composition shows high sensitivity and good storageability and provides highly durable layers.

IT 110992-87-5
(IR-absorber in composition)

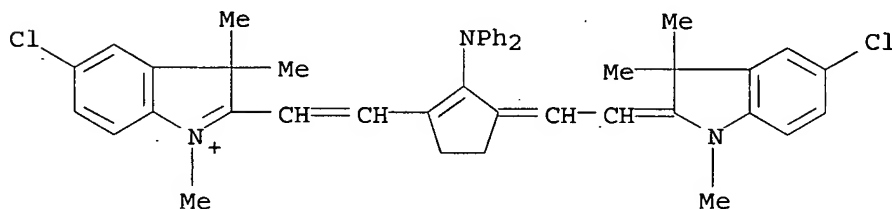
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

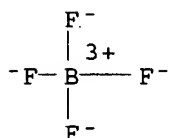


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03F007-029
 ICS C08F002-44; C08F002-50; G03F007-004; G03F007-00
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 IT 110992-87-5 603959-43-9 835902-38-0
 (IR-absorber in composition)

L44 ANSWER 4 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:209978 HCAPLUS

DOCUMENT NUMBER: 142:306465

TITLE: Photopolymerizable photoimaging composition and
 negatively-working directly-imaging lithographic
 printing plate precursors made thereof

INVENTOR(S): Fujimaki, Kazuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005062478	A	20050310	JP 2003-292453	20030812

PRIORITY APPLN. INFO.: JP 2003-292453 20030812
 <--

ED Entered STN: 10 Mar 2005

AB The title composition contains a compound with an amino groups and hydroxy
 groups, an IR-absorber, a radical polymerization initiator, and ethylenic
 unsatd. compds. The composition shows high sensitivity and good
 storageability and provides highly durable layers.

IT 110992-87-5
 (IR-absorber in composition)

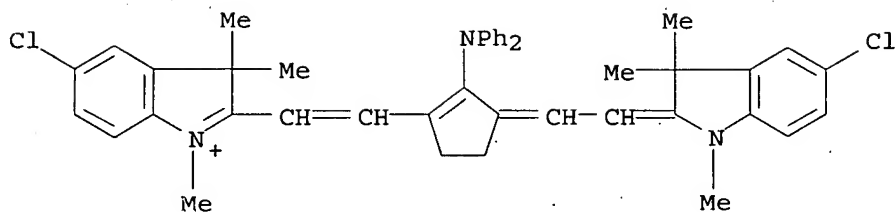
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-
 2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-
 yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX
 NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

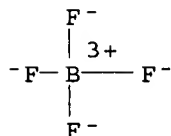


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03F007-004

ICS C08F002-44; G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 110992-87-5 835902-38-0
(IR-absorber in composition)

L44 ANSWER 5 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:94035 HCAPLUS

DOCUMENT NUMBER: 142:207647

TITLE: Polymerizable compositions and negatively lithographic printing original plates using them

INVENTOR(S): Fujimaki, Kazuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 79 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005029611	A	20050203	JP 2003-193580	20030708

PRIORITY APPLN. INFO.:	JP 2003-193580	20030708
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OTHER SOURCE(S): MARPAT 142:207647

ED Entered STN: 03 Feb 2005

AB The comps. comprise (A) C(:O)AC(:O)OH (A = atom, atomic group) and/or C(CO2H)R1:C[C(:O)Z]R2 (R1, R2 = H, monovalent substituent; R1 and R2 may form ring; Z = OR3, NHR4; R3, R4 = H, monovalent substituent), (B) ethylenically unsatd. bond-containing compds., and (C) IR absorbers. The original plates have recording layers of the comps. The original

plates show high sensitivity, good storage stability, and high alkali developability and give alkali-resistant images by IR radiation.

IT 110992-87-5

(IR absorbers; polymerizable compns. for IR-sensitive lithog. original plates with good alkali developability)

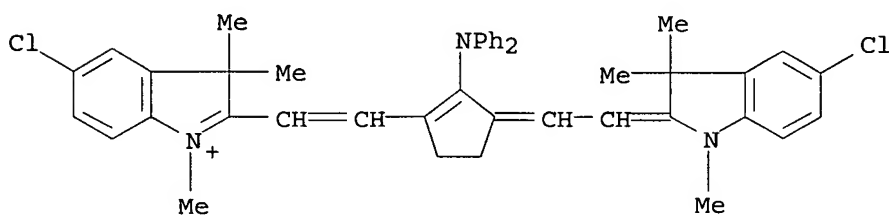
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

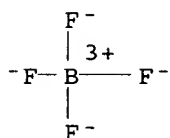


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM C08F002-44

ICS G02B005-20; G03F007-00; G03F007-004; G03H001-02

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 110992-87-5

(IR absorbers; polymerizable compns. for IR-sensitive lithog. original plates with good alkali developability)

L44 ANSWER 6 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:93766 HCAPLUS

DOCUMENT NUMBER: 142:207646

TITLE: Lithographic printing plate precursor and polymerizable composition

INVENTOR(S): Fujimaki, Kazuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 132 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1502735	A2	20050202	EP 2004-18168	20040730
EP 1502735	A3	20050216		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
JP 2005049538	A	20050224	JP 2003-204915	20030731
JP 2005048143	A	20050224	JP 2003-284335	20030731
US 2005026075	A1	20050203	US 2004-901326	20040729
EP 1685958	A1	20060802	EP 2006-10375	20040730
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
PRIORITY APPLN. INFO.:			JP 2003-204915	A 20030731
			JP 2003-284335	A 20030731
			EP 2004-18168	A3 20040730

ED Entered STN: 03 Feb 2005

AB A polymerizable composition contains: (A) a polyurethane compound soluble or swellable in water or an aqueous alkali solution which is obtained by reacting at least one diol compound having an unsatd. bond in a main chain and having a mol. weight of 500 or more with at least one polyisocyanate compound; (B) a radical initiator; and (C) a photothermal converting agent, and a polymerizable composition containing: (A') a polyurethane resin which is soluble or swellable in water or an aqueous alkali solution and has an unsatd. carbon-carbon bond in its side chain; and (B) a radical initiator, wherein the polyurethane resin (A') is obtained by adding an epoxy compound having an unsatd. carbon-carbon bond to a polyurethane resin having carboxyl group.

IT 110992-87-5

(IR absorbing agent; lithog. printing plate precursor and polymerizable composition containing)

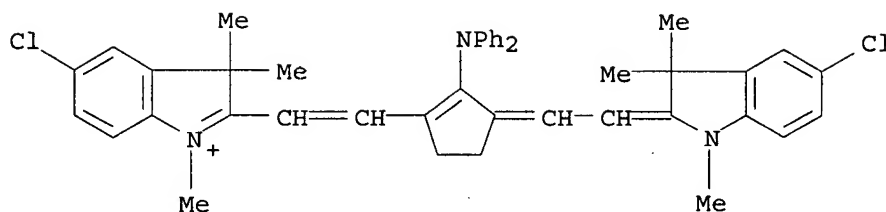
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

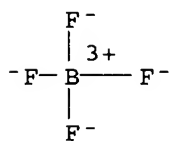


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM B41C001-10
 ICS B41M005-36; G03F007-038; G03F007-035; C08G018-68; C08G018-08;
 C08G018-67
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 35, 38
 IT 110992-87-5 603959-43-9 835902-38-0
 (IR absorbing agent; lithog. printing plate precursor and
 polymerizable composition containing)

L44 ANSWER 7 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:798784 HCAPLUS

DOCUMENT NUMBER: 141:304324

TITLE: Polymerizable compositions containing certain
 cyanine dyes with excellent storage stability and
 IR sensitivity and presensitized lithographic
 plates using them

INVENTOR(S): Shimada, Kazuto

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004271594	A	20040930	JP 2003-58410	20030305

PRIORITY APPLN. INFO.:

JP 2003-58410 20030305

ED Entered STN: 30 Sep 2004

AB The comps., useful for direct platemaking, contain cyanine dyes (maximum

absorption at 700-1200 nm) with inorg. counter anions, radical generators, and polymerizable unsatd. compds., thus giving images with no fogging.

IT 110992-87-5 197087-00-6

(cyanine dye; polymerizable compns. containing certain cyanine dyes with good storage stability and IR sensitivity for presensitized lithog. plates)

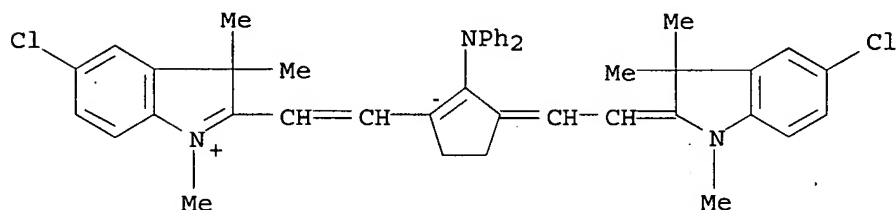
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

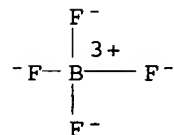


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



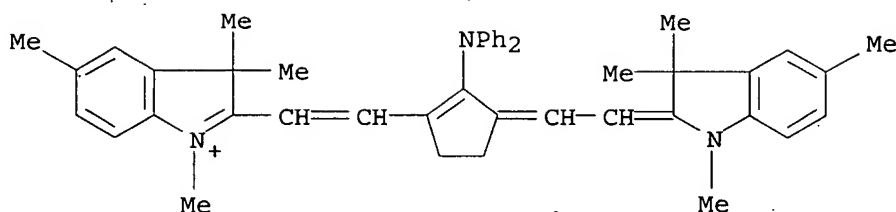
RN 197087-00-6 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3,5-tetramethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 183745-00-8

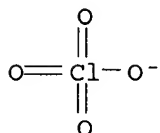
CMF C45 H48 N3



CM 2

CRN 14797-73-0

CMF C1 04



IC ICM G03F007-028
ICS C08F002-50; G03F007-00; G03F007-038

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 38

IT 110992-87-5 183745-11-1 193687-63-7 197087-00-6
761305-91-3 761305-98-0 761306-09-6 761306-17-6 761306-27-8
(cyanine dye; polymerizable compns. containing certain cyanine dyes
with good storage stability and IR sensitivity for presensitized
lithog. plates)

L44 ANSWER 8 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:741953 HCAPLUS

DOCUMENT NUMBER: 141:251477

TITLE: Negative-working presensitized lithographic plates
with good storage stability for direct platemaking
INVENTOR(S): Goto, Takahiro

INVENTOR(S) : Goto, Takahiro

PATENT ASSIGNEE(S) : Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese.

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004252283	A	20040909	JP 2003-44089	20030221

PRIORITY APPLN. INFO.: / JP 2003-44089 20030221
 <-

ED Entered STN: 10 Sep 2004

AB The plates have (a) undercoating layers containing carboxylic acid compds. with $M_w \leq 3000$, (b) photosensitive layers containing IR absorbers, sulfonium salt polymerization catalysts, polymerizable compds., and binder

polymers, and (c) protective layers on supports in this order. The plates show high sensitivity and give lithog. plates with good printing durability.

IT 110992-87-5

(IR absorber; neg.-working presensitized lithog. plates having carboxylic acid compound-containing undercoating layers for direct platemaking)

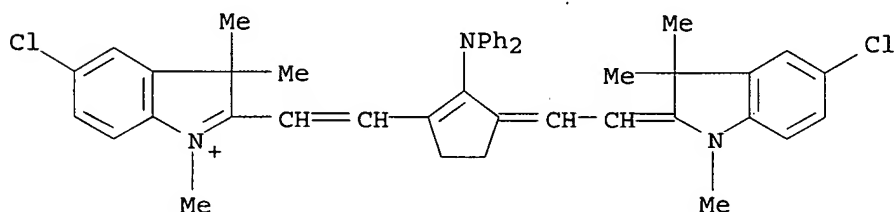
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

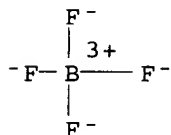


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03F007-11

ICS G03F007-00; G03F007-004; G03F007-029; G03F007-033

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 110992-87-5

(IR absorber; neg.-working presensitized lithog. plates having carboxylic acid compound-containing undercoating layers for direct platemaking)

L44 ANSWER 9 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:700976 HCAPLUS

DOCUMENT NUMBER: 141:215643

TITLE: Chemically amplified light-sensitive polymerizable composition for lithographic offset printing plate precursors and method for direct image formation

using laser beam and the same
 INVENTOR(S): Mizuho, Yuji; Toshimitsu, Eriko
 PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004240120	A	20040826	JP 2003-28515	20030205

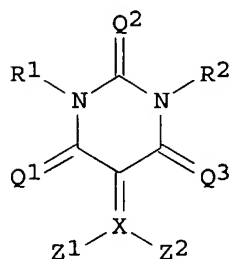
PRIORITY APPLN. INFO.:

JP 2003-28515 20030205

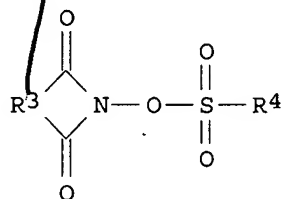
OTHER SOURCE(S): MARPAT 141:215643

ED Entered STN: 27 Aug 2004

GI



I



II

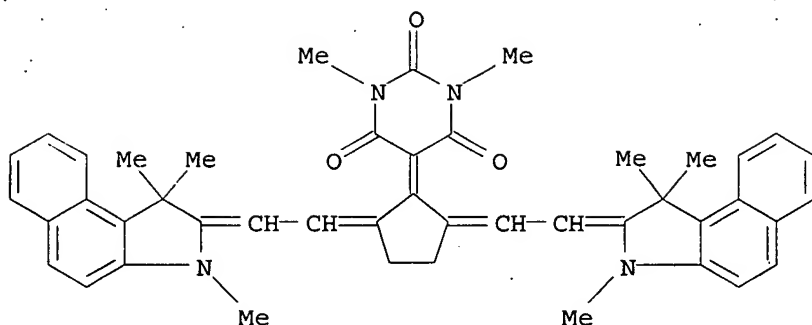
AB The title composition contains an alkali-solubilizable resin, an light-absorber, and an acid generator, wherein the light absorber has general structure I(Q1-3 = O, S; R1-2 = H, aliphatic group; aromatic group, heterocyclic group; =X(Z1)(Z2) = substituent showing light-absorption) and wherein the acid generator has general structure II(R3 = arylene, alkylene, alkenylene; R4 = aliphatic group, aromatic group). The composition provides highly laser beam-sensitive printing plate precursors.

IT 259133-57-8

(light absorber in chemical amplified light-sensitive polymerizable composition)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-031
ICS G03F007-038; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 5551-72-4 85342-62-7 259133-57-8 394211-02-0
744221-44-1
(light absorber in chemical amplified light-sensitive polymerizable composition)

L44 ANSWER 10 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:605648 HCAPLUS

DOCUMENT NUMBER: 141:148133

TITLE: Wear-resistant lithographic original plates, printing process therewith, and UV-absorbing microcapsules therefor

INVENTOR(S): Hiraoka, Saburo

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004209704	A	20040729	JP 2002-379549	20021227

PRIORITY APPLN. INFO.: JP 2002-379549 20021227
<-->

ED Entered STN: 29 Jul 2004

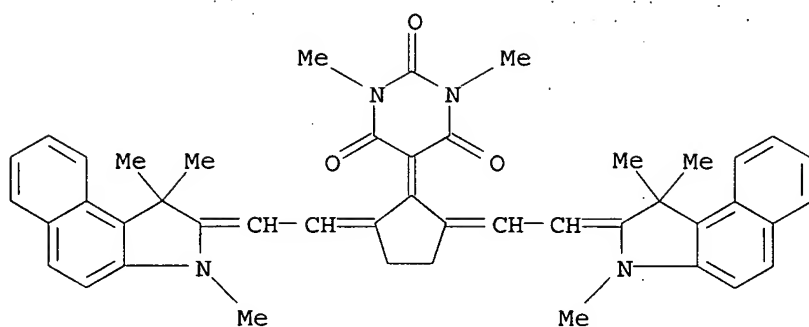
AB The plates have, on hydrophilic supports, lipophilic hot-melt substances or hydrophobic substance precursors (having thermal crosslinking groups) encapsulated in UV absorber-containing microcapsule walls. The microcapsules may contain IR-absorbing photothermal converters. Printing process employing (dampening) water and/or inks and no alkali developers in (on-press) platemaking of the plates is also claimed.

IT 259133-57-8

(S 0325, photothermal converters; PS plates containing UV-absorbing microcapsules and showing long shelf life under light)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM B41N001-14
ICS G03F007-00; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 259133-57-8
(S 0325, photothermal converters; PS plates containing UV-absorbing microcapsules and showing long shelf life under light)

L44 ANSWER 11 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:412025 HCAPLUS

DOCUMENT NUMBER: 140:431393

TITLE: Photoimaging compositions and high-resolution pattern formation therefrom by stereophotolithography

INVENTOR(S): Urano, Toshiyoshi

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004144869	A	20040520	JP 2002-307851	20021023

PRIORITY APPLN. INFO.:

JP 2002-307851 20021023

ED Entered STN: 21 May 2004

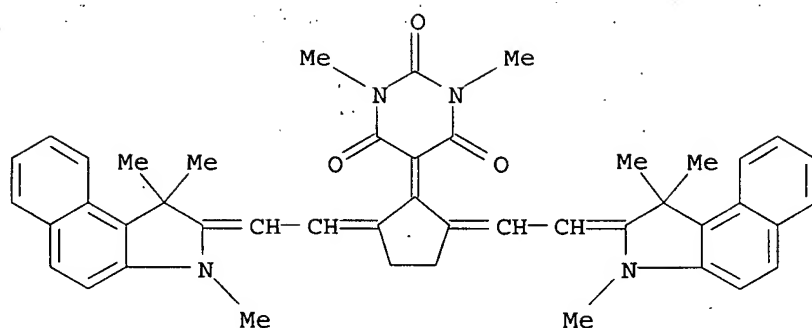
AB The compns., comprising (A) laser-sensitive photothermal conversion substances and (B) photosensitive components, are patterned (for shaping or recording) by 3-dimensional scanning exposure to lasers with 350-1300 nm wavelength at light intensity $\geq 9.5 \times 10^3$ W/cm².

IT 259133-57-8

(photothermal conversion substances; high-resolution stereolithog. with photothermal converter-containing photoimaging resin compns.)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-029
 ICS B29C067-00; C08F002-50; G03F007-004; G03F007-20
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38
 IT 259133-57-8 328063-81-6
 (photothermal conversion substances; high-resolution stereolithog.
 with photothermal converter-containing photoimaging resin compns.)

L44 ANSWER 12 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:330804 HCAPLUS

DOCUMENT NUMBER: 140:347592

TITLE: Negative-working lithographic printing master
 plate having photosensitive layer with specific
 near-IR absorptivity

INVENTOR(S): Murota, Yasufumi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004126031	A	20040422	JP 2002-287615	20020930

PRIORITY APPLN. INFO.: JP 2002-287615 20020930

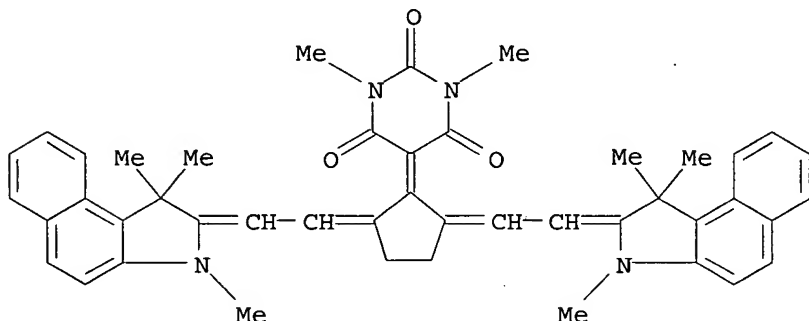
ED Entered STN: 23 Apr 2004

AB The neg.-working lithog. printing master plate comprises a
 photosensitive layer on a support containing (1) an ethylenic unsatd.
 compound, (2) a dye having the maximum absorption in 500-700 nm, (3) a
 cyanine and/or phthalocyanine sensitizing dye which has a heterocyclyl
 bonded via a polymethine chain and has the maximum absorption in 700-900
 nm, and (4) a radical generating agent, wherein the absorptivity of
 the photosensitive layer satisfies the following conditions: (a) the
 absorptivity (OD_x) of the dye at the maximum absorption wavelength is
 0.4<OD_x<2.0 and (b) the absorptivity (OD_y) of the sensitizing dye at
 the maximum absorption wavelength is 0.2<OD_y<2.0. The neg.-working
 lithog. printing master plate exhibited high sensitivity toward
 near-IR light.

IT 259133-57-8 442548-17-6

(sensitizing dye; neg.-working lithog. printing master plate having
 photosensitive layer with specific near-IR absorptivity)

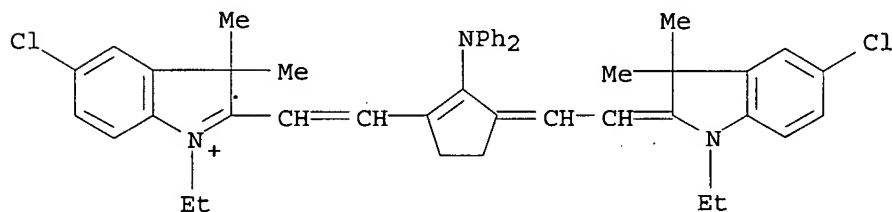
RN 259133-57-8 HCAPLUS
 CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



RN 442548-17-6 HCAPLUS
 CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

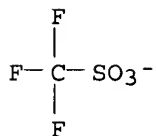
CM 1

CRN 162717-38-6
 CMF C45 H46 Cl2 N3



CM 2

CRN 37181-39-8
 CMF C F3 O3 S



IC ICM G03F007-004
 ICS G03F007-00
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41

259133-57-8 442548-17-6 681127-09-3
 (sensitizing dye; neg.-working lithog. printing master plate having photosensitive layer with specific near-IR absorptivity)

L44 ANSWER 13 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:139744 HCAPLUS

DOCUMENT NUMBER: 140:190028

TITLE: Negative-working photoimaging compositions, presensitized lithographic plates, and photolithography thereon

INVENTOR(S): Urano, Toshiyoshi; Masuda, Tetsuya

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 34 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004054107	A	20040219	JP 2002-213972	20020723

PRIORITY APPLN. INFO.: JP 2002-213972 20020723

ED Entered STN: 20 Feb 2004

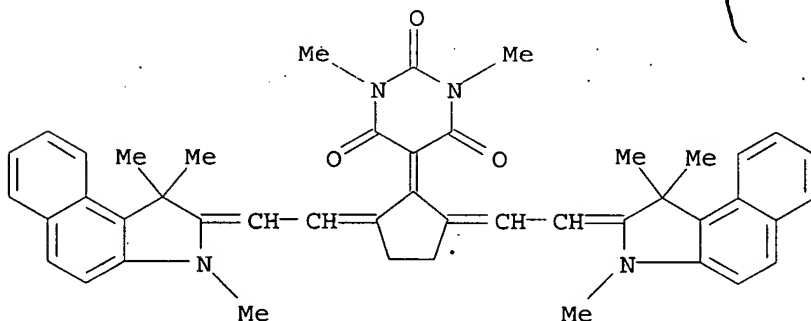
AB Compns. of (A) three-dimensionally crosslinkable components, (B) photothermal conversion agents, and (C) epoxy-bearing compds. are applied on supports, scanned by 350-1300-nm laser light (at $\geq 9.5 + 103 \text{ W/cm}^2$), and developed to give PS plates with good interlayer adhesion of the printing face and the supports. The compns. show excellent safelight property while having high sensitivity to IR-UV light.

IT 259133-57-8

(photothermal converters; neg. photoimaging compns. containing epoxy-bearing components for PS plates with good interlayer adhesion)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-038

ICS C08F002-44; C08F291-10; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38,

IT 212964-63-1 259133-57-8 328063-81-6

(photothermal converters; neg. photoimaging compns. containing epoxy-bearing components for PS plates with good interlayer adhesion)

L44 ANSWER 14 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:139743 HCAPLUS

DOCUMENT NUMBER: 140:190027

TITLE: IR-sensitive positive photoimaging compositions, presensitized lithographic plates, and photoimaging thereon

INVENTOR(S): Urano, Toshiyoshi; Mizuho, Yuji; Toshimitsu, Eriko

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004054106	A	20040219	JP 2002-213971	20020723
			<--	
PRIORITY APPLN. INFO.:			JP 2002-213971	20020723
			<--	

OTHER SOURCE(S): MARPAT 140:190027

ED Entered STN: 20 Feb 2004

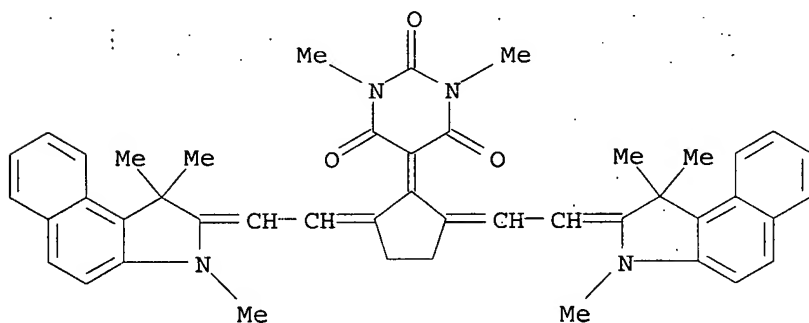
AB Compns. containing photothermal conversion agents, alkali-soluble resins having acid-labile groups, and water-insol. and alkali-soluble photoacid generators are applied on supports, scanned with 650-1300-nm laser light (for $\geq 9.5 + 10^3$ W/cm²), and alkali developed to form lithog. plates having printing face with good adhesion to the supports. The resins may be poly(vinyl phenols) or novolaks.

IT 259133-57-8

(photothermal converters; IR-sensitive pos. photoimaging compns. containing water-insol. photoacid generators for PS plates)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-004

ICS G03F007-032; G03F007-039

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

Section cross-reference(s): 38

IT 212964-63-1 259133-57-8

(photothermal converters; IR-sensitive pos. photoimaging comps.
containing water-insol. photoacid generators for PS plates)

L44 ANSWER 15 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:870481 HCAPLUS

DOCUMENT NUMBER: 139:356044

TITLE: Radiation-sensitive mixture and recording material
using this mixture

INVENTOR(S): Gries, Willi Kurt

PATENT ASSIGNEE(S): AGFA-Gevaert, Belg.

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1359008	A1	20031105	EP 2002-100424	20020429
EP 1359008	B1	20050831		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003215744	A1	20031120	US 2003-425158	20030429
JP 2003344997	A	20031203	JP 2003-125528	20030430
PRIORITY APPLN. INFO.:			EP 2002-100424	A 20020429
			US 2002-390988P	P 20020624

→ CNK
Dr
on der Coat
Layer.

OTHER SOURCE(S): MARPAT 139:356044

ED Entered STN: 06 Nov 2003

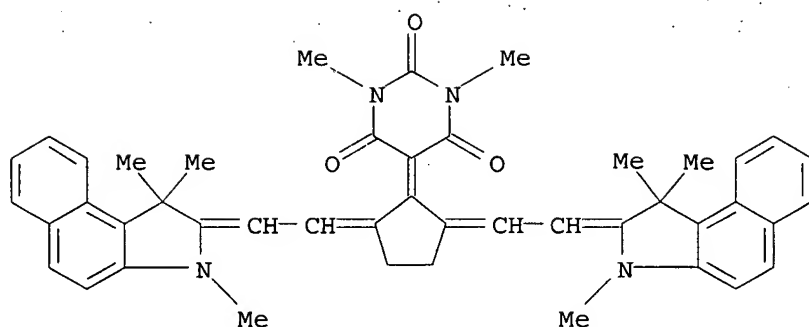
AB The invention relates to a radiation-sensitive mixture comprising a radical polymerizable acrylate- or methacrylate-monomer and/or oligomer with at least two acrylate- and/or methacrylate-groups and at least one photooxidizable group, one photoinitiator, one IR-absorbing dye and one organic polymer binder, wherein the IR-absorbing dye is heptamethyl cyanine dye. The invention further relates to a recording material with a support and a photopolymerizable layer as well as a method for manufacturing a printing plate using the recording material. The recording material shows excellent light sensitivity.

IT 259133-57-8

(IR dye in photopolymerizable recording mixture suitable for manufacturing offset lithog. printing plate)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM B41C001-10
 ICS B41M005-36; B41M005-40; C09B055-00
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 IT 134127-48-3 259133-57-8 328063-81-6 328063-88-3
 618437-50-6 618437-51-7
 (IR dye in photopolymerizable recording mixture suitable for manufacturing offset lithog. printing plate)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 16 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:723567 HCAPLUS
 DOCUMENT NUMBER: 139:237767
 TITLE: Manufacture of negatively lithographic printing original plates
 INVENTOR(S): Aoshima, Keitaro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003260881	A	20030916	JP 2002-62219	20020307
PRIORITY APPLN. INFO.: JP 2002-62219 20020307				

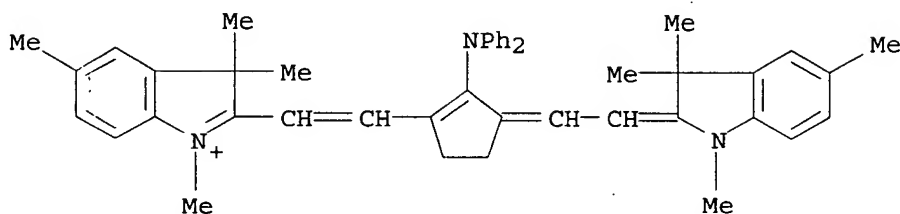
ED Entered STN: 16 Sep 2003
 AB In manufacture of the plates by formation of recording layers giving hydrophobic regions by exposure to IR laser light, the plates are cut by using cutting slitters having interval of upper edges and lower edges 0-30 μ m. The plates show good crack resistance in cutting and no stains at edge parts.
 IT 197087-00-6
 (IR absorbers in recording layers; cutting in manufacture of IR laser-sensitive neg. lithog. original plates with good edge-stain resistance)
 RN 197087-00-6 HCAPLUS
 CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-

1,3,3,5-tetramethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 183745-00-8

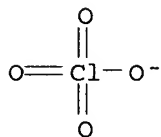
CMF C45 H48 N3



CM 2

CRN 14797-73-0

CMF Cl O4



IC ICM B41N001-08

ICS B23D019-06; G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 134127-48-3 182749-66-2 197087-00-6 221661-30-9

(IR absorbers in recording layers; cutting in manufacture of IR laser-sensitive neg. lithog. original plates with good edge-stain resistance)

L44 ANSWER 17 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:353722 HCAPLUS

DOCUMENT NUMBER: 138:360441

TITLE: Presensitized negative lithographic original plates and heat-sensitive radical generator compositions therefor

INVENTOR(S): Shimada, Kazuto; Sorori, Tadahiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003131360	A	20030509	JP 2001-329129	20011026

<--

PRIORITY APPLN. INFO.

JP 2001-329129

20011026

OTHER SOURCE(S): MARPAT 138:360441

ED Entered STN: 09 May 2003

AB The plates have photothermal conversion layers containing heat-sensitive radical generators $\text{RSO}_2\text{S-M}^+$ [R = alk(en)yl, aryl, aralkyl, alkynyl; M^+ = sulfonium, diazonium, iodonium, azinium], compds. which change chemical or phys. properties irreversibly upon reaction with radicals, and binder polymers.

IT 442548-17-6

(photothermal converters; high-sensitive photopolymerizable compns. containing sp. onium-type radical generators for PS plates)

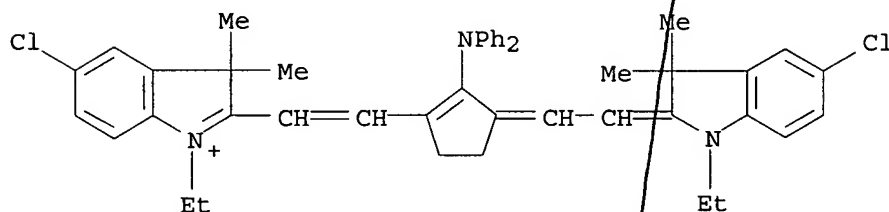
RN 442548-17-6 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 162717-38-6

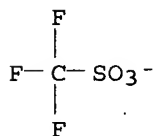
CMF C45 H46 Cl2 N3



CM 2

CRN 37181-39-8

CMF C F3 O3 S



IC ICM G03F007-00

ICS B41N001-14; G03F007-004; G03F007-028

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 134127-48-3 351195-63-6 442548-17-6

(photothermal converters; high-sensitive photopolymerizable compns. containing sp. onium-type radical generators for PS plates)

L44 ANSWER 18 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:353716 HCAPLUS

DOCUMENT NUMBER: 138:346431

TITLE: Heat-developable photographic materials with backing layers for easy conveying
 INVENTOR(S): Kubo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003131341	A	20030509	JP 2001-324431	20011023

PRIORITY APPLN. INFO.: JP 2001-324431 20011023

ED Entered STN: 09 May 2003

AB The outermost backing layer, formed on the photog. film, (A) shows surface energy of 10-70 J/m² after heat development or (B) shows post heat-development surface energy difference of ≤30 J/m² with the tape which is adhered onto the backing layer on conveying of the film. Method for treatment of the films by exposure at 750-800 nm and reading of information (e.g. register marks) at 600-700 nm is also claimed. Also claimed is development of the films with a heat developer equipped with upper and lower heaters and with conveying rollers only on the image-forming side of the film.

IT 183745-01-9

(dye, outermost backing layer comprising; heat-developable photog. films with certain surface energy on their outermost backing layer for easy conveying)

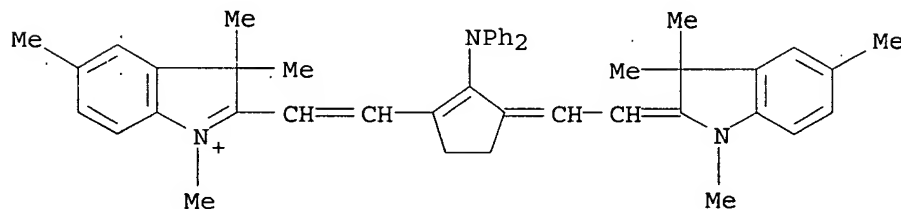
RN 183745-01-9 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3,5-tetramethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 183745-00-8

CMF C45 H48 N3

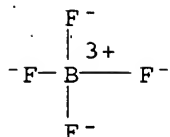


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS

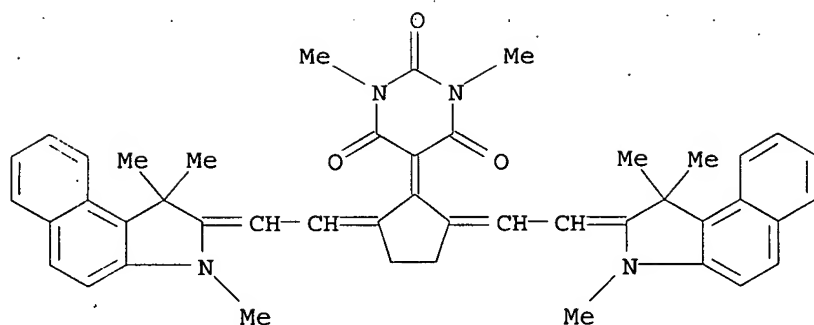


IC ICM G03C001-76
 ICS G03C001-498; G03C001-74; G03C005-08; G03D013-00
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 183745-01-9 518021-36-8
 (dye, outermost backing layer comprising; heat-developable photog. films with certain surface energy on their outermost backing layer for easy conveying)

L44 ANSWER 19 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:71189 HCAPLUS
 DOCUMENT NUMBER: 138:129053
 TITLE: Thermal-transfer printing sheet with light-to-heat converting layer containing nonionic dye
 INVENTOR(S): Yamamoto, Mitsuru; Matsushita, Tetsunori
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003025743	A	20030129	JP 2001-213793	20010713
			<--	
			JP 2001-213793	20010713
			<--	

PRIORITY APPLN. INFO.:
 OTHER SOURCE(S): MARPAT 138:129053
 ED Entered STN: 29 Jan 2003
 AB In the thermal-transfer printing set comprising the sheet and an image receptor, the sheet comprises a support coated with a light-to-heat converting layer with OD/T \geq 0.57 (OD = optical d.; T = layer thickness) containing a nonionic dye and an image-forming layer. The nonionic dye may be merocyanine dye. The sheet shows stable transfer ratio even when environmental condition changes and gives clear images.
 IT 259133-57-8
 (thermal-transfer printing sheet with light-to-heat converting layer containing nonionic dye)
 RN 259133-57-8 HCAPLUS
 CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM B41M005-40
ICS B41M005-26
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41
IT 259133-57-8 491080-15-0 491080-16-1 491080-17-2
(thermal-transfer printing sheet with light-to-heat converting layer containing nonionic dye)

L44 ANSWER 20 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:752281 HCAPLUS

DOCUMENT NUMBER: 137:270622

TITLE: Planographic printing plate precursor for image recording material

INVENTOR(S): Aoshima, Keitaro; Kikuchi, Kei

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1245405	A2	20021002	EP 2002-6627	20020325
EP 1245405	A3	20050601	<--	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002296768	A	20021009	JP 2001-97299	20010329
US 2003008228	A1	20030109	US 2002-101695	20020321
PRIORITY APPLN. INFO.:			JP 2001-97299	A 20010329

→ ask for Undercoat

OTHER SOURCE(S): MARPAT 137:270622

ED Entered STN: 04 Oct 2002

AB The present invention relates to a planog. printing plate precursor that has sensitivity to a UV ray, a visible ray, or an IR ray. The present invention relates to a so-called neg.-type image recording materials capable of directly plate-making by using a laser from a digital signal of a computer or the like. A neg.-type image recording material comprises a support having a rear surface and an image recording layer disposed on the support, the image recording layer having a front surface and including (A) a radical-generating agent

and (B) a radically polymerizable compound, wherein a static friction coefficient between the front surface and the rear surface is < 0.50 . In order to achieve such a specified static friction coefficient, it is preferable that the image recording layer contains (D) a compound represented by: R_1-X ($R_1 = C_8-32$ hydrocarbon group; $X = CO-Y-R_2$, $NH-CO-NH-R_2$, SO_2-Y-R_2 , $Y-R_3$; $Y = O, S, NR_4$ or a single bond; $R_2-4 = H$, hydrocarbon having a total of not more than 20 carbon atoms).

IT 442548-17-6

(IR absorbent; planog. printing plates precursor for image recording material containing)

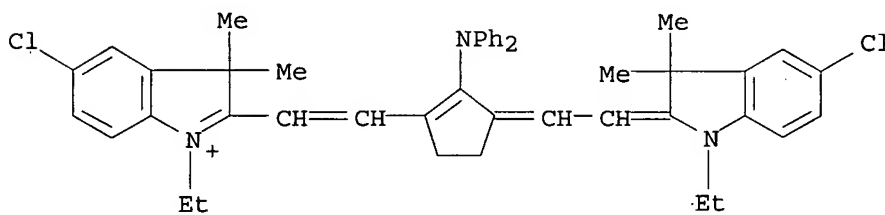
RN 442548-17-6 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 162717-38-6

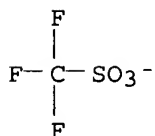
CMF C45 H46 Cl2 N3



CM 2

CRN 37181-39-8

CMF C F3 O3 S



IC ICM B41N006-00

ICS B41N001-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 134127-48-3 162717-39-7 442548-17-6

(IR absorbent; planog. printing plates precursor for image recording material containing)

L44 ANSWER 21 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:707555 HCAPLUS

DOCUMENT NUMBER: 137:255361

TITLE: Heat-mode negative-working lithographic printing master plate containing onium salt polymerization

initiator
INVENTOR(S): Shimada, Kazuto; Sorori, Tadahiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002268217	A	20020918	JF 2001-69168	20010312
			<--	
US 2003017411	A1	20030123	US 2002-93746	20020311
			<--	
US 6623910	B2	20030923		
EP 1241002	A2	20020918	EP 2002-5289	20020312
			<--	
EP 1241002	A3	20040102		
EP 1241002	B1	20060208		
R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU,				
MC, NL, PT, SE, TR				
AT 317329	T	20060215	AT 2002-5289	20020312

PRIORITY APPLN. INFO.: JP 2001-69168 A 20010312

ED Entered STN: 18 Sep 2002

AB The heat-mode neg.-working lithog. printing master plate comprises an IR-laser recordable photosensitive layer on a support which contains (a) a light-to-heat conversion agent, (b) a compound having a polymerizable unsatd. group, and (c) an onium salt having a polyvalent counter ion as a polymerization initiator. The onium salt includes diazonium salts, iodonium salts, and sulfonium salts, and preferably, the polyvalent counter ion is valency between 2 and 6. The use of the onium salt having a polyvalent anion increased an electron d. of the counter anion, resulting in promoting a decomposition of the onium salt upon receiving heat.

IT 183745-01-9
(light-to-heat conversion agent; heat-mode neg.-working lithog.
printing master plate containing onium salt polymerization initiator)

RN 183745-01-9 HCAPLUS

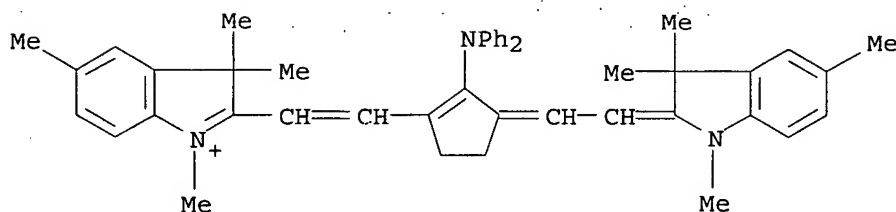
CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3,5-tetramethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 183745-00-8

CMF C45 H48 N3

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for underconn.

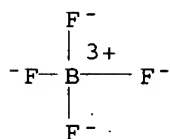


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03F007-029
 ICS B41N001-14; C08F002-50; G03F007-00
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35, 38
 IT 183745-01-9 460337-33-1 460337-34-2
 (light-to-heat conversion agent; heat-mode neg.-working lithog. printing master plate containing onium salt polymerization initiator)

L44 ANSWER 22 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:606235 HCAPLUS
 DOCUMENT NUMBER: 137:161407
 TITLE: Laser-sensitive negative-working lithographic original plate with backcoat layer
 INVENTOR(S): Aoshima, Keitaro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002225453	A	20020814	JP 2001-20131	20010129
<--				
PRIORITY APPLN. INFO.:			JP 2001-20131	20010129
<--				

ED Entered STN: 14 Aug 2002
 AB In the plate comprising a support coated with a photosensitive layer in which IR laser-exposed area becomes hydrophobic, and a backcoat layer containing (1) an organic polymer with glass transition temperature $\geq 20^\circ$ or (2) an organic polymer and a sol-gel reaction

product formed by hydrolyzing and condensing a metal compound. The plate is directly made from digital data using IR laser and shows good storage stability and abrasion resistance.

IT 197087-00-6

(IR absorbent; IR-sensitive lithog. plate with backcoat layer and photosensitive layer)

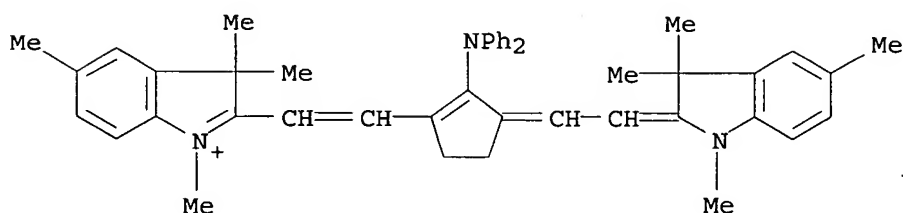
RN 197087-00-6 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3,5-tetramethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 183745-00-8

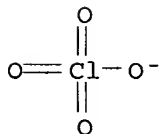
CMF C45 H48 N3



CM 2

CRN 14797-73-0

CMF Cl O4



IC ICM B41N003-00

ICS G03F007-00; G03F007-004; G03F007-027; G03F007-029; G03F007-032; G03F007-033; G03F007-038; G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 85568-56-5, Megafac F 177 134127-48-3 197087-00-6

(IR absorbent; IR-sensitive lithog. plate with backcoat layer and photosensitive layer)

L44 ANSWER 23 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:538432 HCAPLUS

DOCUMENT NUMBER: 137:101449

TITLE: Photopolymerizable compositions for near IR laser exposure and lithographic plates using them with excellent sensitivity and storage stability

INVENTOR(S): Tsurutani, Yasuyuki; Toshimitsu, Eriko

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002202592	A	20020719	JP 2001-75248	20010316

PRIORITY APPLN. INFO.: JP 2000-324902 A 20001025

OTHER SOURCE(S): MARPAT 137:101449

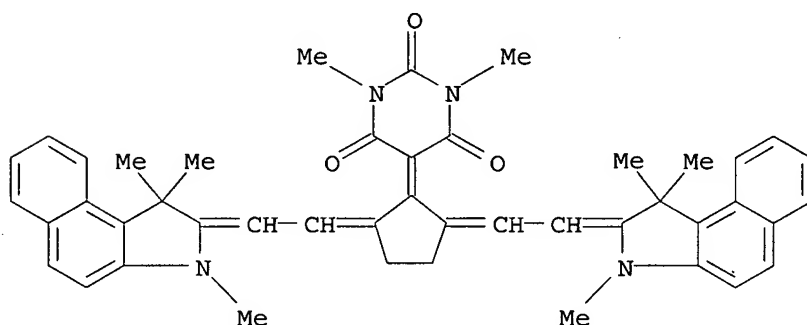
ED Entered STN: 19 Jul 2002

AB The comps. contain ethylenic monomers, photopolymer. initiators (consisting of sensitizing dyes and radical generators, preferably) generating radicals by light with wavelength 600-1300 nm, and amine compds. having atomic groups NCH₂.

IT 259133-57-8
(amine-containing photopolymerizable comps. for lithog. plates with good near IR laser sensitivity and storage stability)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-004

ICS G03F007-004; B41N001-14; G03F007-00; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 259133-57-8

(amine-containing photopolymerizable comps. for lithog. plates with good near IR laser sensitivity and storage stability)

L44 ANSWER 24 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:480572 HCAPLUS

DOCUMENT NUMBER: 137:70521

TITLE: Photopolymerizable compositions and their presensitized lithographic plates having enhanced plate wear characteristics and high sensitivity

INVENTOR(S): Urano, Toshiyoshi; Okamoto, Hideaki

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002182391	A	20020626	JP 2000-384632	20001219

PRIORITY APPLN. INFO.: JP 2000-384632 20001219

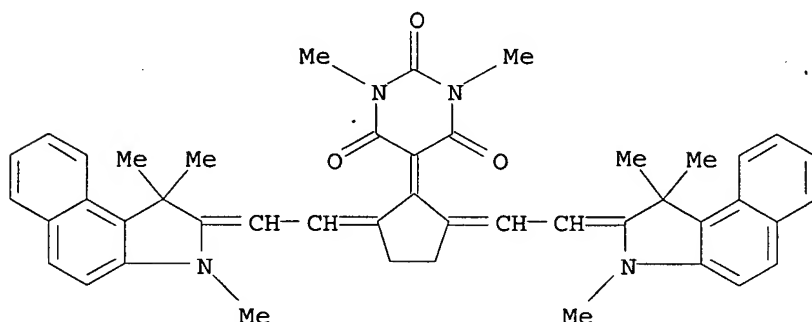
ED Entered STN: 26 Jun 2002

AB The compns. for lithog. plates contain (A) polymer binders involving structure units CH₂CR₃₁[CO₂CHR₃₂CH(OH)V] (R₃₁ = H, Me; R₃₂ = alkyl, H; V = epoxy group-containing ethylenically unsatd. compound residue) and (meth)acrylonitrile-derived units, (B) ethylenically unsatd. compds., (C) photopolymeriz. initiators, and optionally (D) sensitizing dyes.

IT 259133-57-8
(sensitizing dye; photopolymerizable compns. for presensitized lithog. plates having enhanced plate wear characteristics and high sensitivity)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-038
ICS B41N001-14; C08F002-50; C08F290-12; G03F007-00; G03F007-027;
G03F007-028

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 90-93-7, 4,4'-Bis(diethylamino)benzophenone 147-14-8, Copper phthalocyanine 131083-16-4 259133-57-8
(sensitizing dye; photopolymerizable compns. for presensitized lithog. plates having enhanced plate wear characteristics and high sensitivity)

L44 ANSWER 25 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:480571 HCAPLUS

DOCUMENT NUMBER: 137:70520

TITLE: Photopolymerizable compositions and their presensitized lithographic plates having enhanced plate wear characteristics and high sensitivity

INVENTOR(S): Urano, Toshiyoshi; Noguchi, Motoyoshi

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002182390	A	20020626	JP 2000-384626	20001219
PRIORITY APPLN. INFO.: JP 2000-384626 20001219				

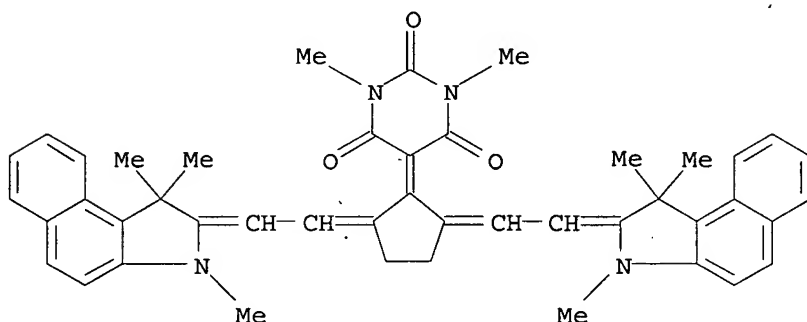
ED Entered STN: 26 Jun 2002

AB The comps. for lithog. plates contain (A) polymer binders involving structure units CH₂CR₃₁[CO₂CHR₃₂CH(OH)V] (R₃₁ = H, Me; R₃₂ = alkyl, H; V = epoxy group-containing ethylenically unsatd. compound residue) and CH₂CR₃₁[CO₂(CH₂CR₃₄R₃₇)nH] (R₃₁ = Me, H; R₃₄ = alkyl, H; R₃₇ = CO₂H, carboxylic acid ester, CN, Ph; n = 10-1000 integer), (B) ethylenically unsatd. compds., (C) photopolymn. initiators, and optionally (D) sensitizing dyes.

IT 259133-57-8
 (sensitizing dye; photopolymerizable comps. for presensitized lithog. plates having enhanced plate wear characteristics and high sensitivity)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-038

ICS B41N001-14; C08F002-50; C08F246-00; C08F290-12; G03F007-00; G03F007-027; G03F007-028

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 90-93-7, 4,4'-Bis(diethylamino)benzophenone 147-14-8, Copper phthalocyanine 131083-16-4 259133-57-8

(sensitizing dye; photopolymerizable comps. for presensitized lithog. plates having enhanced plate wear characteristics and high sensitivity)

L44 ANSWER 26 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:439003 HCAPLUS

DOCUMENT NUMBER: 137:26138

TITLE: Photopolymerization lithographic printing plate for near-infrared laser exposure and its manufacture

INVENTOR(S): Urano, Toshiyoshi
 PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002166669	A	20020611	JP 2000-362422	20001129

PRIORITY APPLN. INFO.: JP 2000-287935 A 20000922

ED Entered STN: 11 Jun 2002

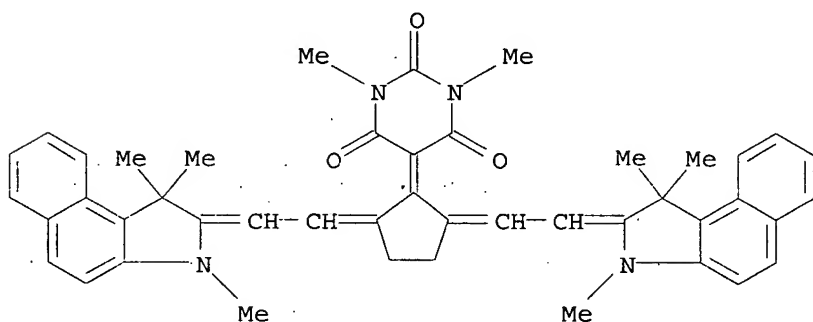
AB The plate comprises a hydrophilic support having thereon a photosensitive layer containing (A) an ethylenically unsatd. compound, (B) a cyanine sensitizing dye cation linked with a heterocyclic ring through a polymethine chain and/or phthalocyanine sensitizing dye, and (C) an organic boron anion and/or a halomethyl-containing compound. It is characterized by that peel strength of gum tape from the hydrophilic support is ≤ 500 g/cm. The plate is manufactured by the following steps: (1) exposing the photosensitive layer by near IR ray for hardening imagewise; (2) installing the exposed plate on a printing cylinder; and (3) removing unhardened areas from the support to a blanket roller surface by adhesion of ink supplied together with damping water. The plate showed high sensitivity can be developed without using alkaline developer, and handled under white fluorescent lamp.

IT 259133-57-8

(sensitizer; photopolymerizable lithog plate for IR laser exposure)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM B41N001-14

ICS B41C001-055; G03F007-00; G03F007-028; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 259133-57-8

328063-81-6

(sensitizer; photopolymerizable lithog plate for IR laser exposure)

L44 ANSWER 27 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:407168 HCAPLUS
DOCUMENT NUMBER: 137:13255
TITLE: Near IR laser-sensitive photopolymerizable compositions and manufacture of lithographic plates using the same
INVENTOR(S): Okamoto, Hideaki; Kobori, Kazuhiro
PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002156751	A	20020531	JP 2000-369416	20001205

PRIORITY APPLN. INFO.: JP 2000-267932 A 20000905

ED Entered STN: 31 May 2002

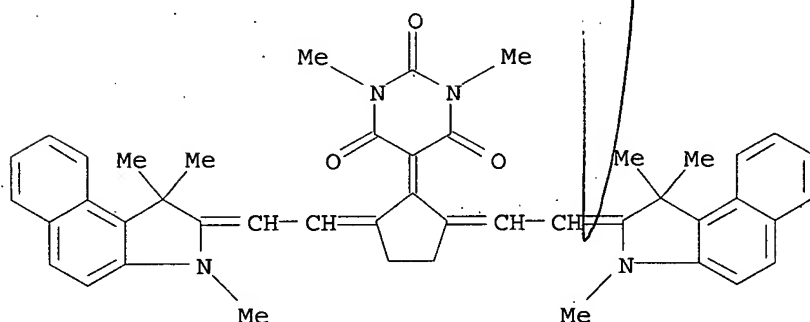
AB The comps. contain (A) ethylenically unsatd. compds., (B) cyanine-based sensitizing dyes having heterocyclic rings bonded via polymethyne chains and/or phthalocyanine-based sensitizing dyes, (C) organic boric anions and/or halomethyl group-containing compds., and (D) 3< and ≤20% colorants having absorption maximum at 450-650 nm, preferably basic dyes, more preferably, triphenylmethane-based dyes. The comps. are applied on lithog. supports, exposed to near IR laser of 750-1200 nm, and developed with alkali developers to give lithog. plates. The colorants of that absorption maximum can be compounded in the comps. relatively large amts., offering good visibility of the images, without sacrificing the sensitivity to near IR light. Moreover, treatment such as dispersing is not necessary and the comps. are free from problems like aggregation of the colorants, thereby offering good storage stability and durability in printing.

IT 259133-57-8

(sensitizer; near IR laser-sensitive photopolymerizable compns. containing colorants of specific λ_{max} for lithog. plates)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-004

ICS C08F002-50; G03F007-00; G03F007-027; G03F007-029

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

Section cross-reference(s): 38

IT 259133-57-8

(sensitizer; near IR laser-sensitive photopolymerizable compns.
containing colorants of specific λ_{max} for lithog. plates)

L44 ANSWER 28 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:760373 HCAPLUS

DOCUMENT NUMBER: 135:325271

TITLE: Photopolymerizable compositions containing
urethane compounds, presensitized lithographic
printing plates therefrom, and platemaking method

INVENTOR(S): Okamoto, Hideaki; Urano, Toshiyoshi; Noguchi,
Motoharu

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001290267	A	20011019	JP 2001-16536	20010125

PRIORITY APPLN. INFO.:

JP 2000-23993

A 20000201

ED Entered STN: 19 Oct 2001

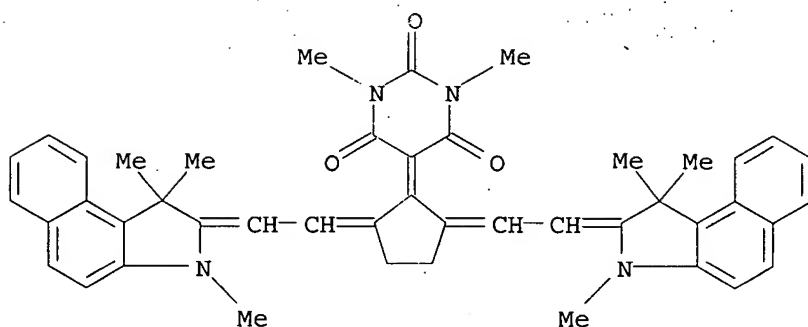
AB The compns. contain ethylenic monomers (including urethane compds.
having ≥ 4 urethane bonds and ≥ 4 addition-polymerizable
double bonds) and photopolymn. initiator systems. Thus, a composition
containing a reaction product of NK Ester A 9530 (dipentaerythritol
pentaacrylate-based compound) and ME 20-100 (polyisocyanate) 44,
2-(methacryloyloxy)ethyl phosphate 11, a titanocene radical generator
5, dipyrrometheneboron difluoride-based sensitizers 1.0, and Me
methacrylate-methacrylic acid-Cyclomer A 200 (alicyclic epoxy
acrylate) copolymer 45 parts was applied on an anodized Al plate,
exposed to a laser beam, and developed with an alkali solution to give a
test piece with good resolution and durability.

IT 259133-57-8

(sensitizer; photopolymerizable compns. containing urethane compds. for
photosensitive lithog. plates with good resolution and durability)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-
trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-
dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-027
 ICS C08F002-50; C08F299-06; G03F007-00; G03F007-004; G03F007-029;
 G03F007-031; G03F007-032
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 IT 55799-81-0 141052-73-5 259133-57-8 367965-49-9
 (sensitizer; photopolymerizable compns. containing urethane compds. for
 photosensitive lithog. plates with good resolution and durability)

L44 ANSWER 29 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:28872 HCAPLUS

DOCUMENT NUMBER: 134:108067

TITLE: Photothermographic copying materials containing
 water-soluble IR absorbing dyes

INVENTOR(S): Arimoto, Naoshi; Sasaki, Kamiyuki

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

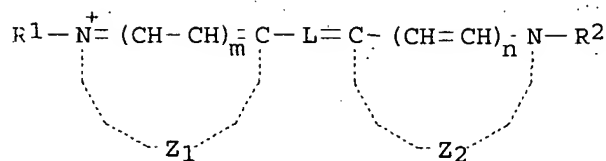
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001005141	A	20010112	JP 2000-115053	20000417
US 6391535	B1	20020521	US 2000-550553	20000417

PRIORITY APPLN. INFO.: JP 1999-110795 A 19990419

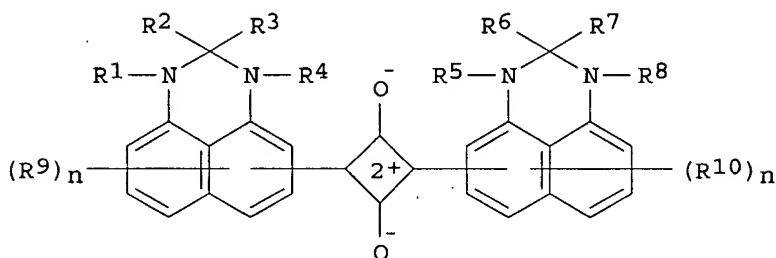
OTHER SOURCE(S): MARPAT 134:108067

ED Entered STN: 12 Jan 2001

GI

 $(X^-)_p$

I



II

AB The material, showing minimized d. unevenness derived from interference fringes, contains organic Ag salts and photosensitive Ag halides and have subbing layers which contain (i) water-soluble IR absorbing dyes with the maximum absorption wavelength (λ_{max}) 700-900 nm, (ii) Cu-containing phosphoric acid compds., or (ii) metal oxide micropowders of $\lambda_{max} \geq 600$ nm. The dyes may be polymethine dyes I [Z_1, Z_2 = 5- or 6-membered azacycle; R^1, R^2 = alk(en)yl, aralkyl; L = conjugated linkage comprising 5, 7, or 9 methines; m, n, p = 0, 1; X = anion] or squarylium dyes II [R^1, R^4, R^5, R^8 = H, C1-20 (cyclo)alkyl, C \leq 14 aryl(alkyl); R^2, R^3, R^6, R^7 = H, C1-20 (cyclo)alkyl, C \leq 14 aryl(alkyl), CH_2OR [R = alkylacyl, COR' (R' = C1-20 alkyl)], alkylsilyl, alkylsulfonyl; R^9, R^{10} = monovalent group; n = 1-3].

IT 197087-00-6

(IR absorbing dyes; photothermog. materials containing IR absorbing dyes, Cu-containing phosphoric acids, or oxide powders in subbing layers)

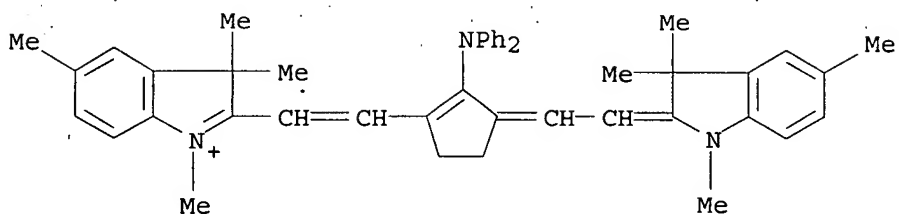
RN 197087-00-6 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3,5-tetramethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 183745-00-8

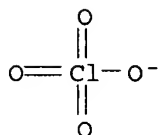
CMF C45 H48 N3



CM 2

CRN 14797-73-0

CMF Cl 04



IC ICM G03C001-498

ICS G03C001-76

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

IT 3599-32-4 161375-44-6 161375-45-7 183745-24-6 184892-21-5

197087-00-6 197087-01-7 318294-04-1

(IR absorbing dyes; photothermog. materials containing IR absorbing dyes, Cu-containing phosphoric acids, or oxide powders in subbing layers)

L44 ANSWER 30 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:313524 HCAPLUS

DOCUMENT NUMBER: 132:341204

TITLE: Photopolymerizable composition and lithographic printing plate and image formation method using it

INVENTOR(S): Urano, Toshiyoshi; Nagao, Takumi; Hino, Etsuko

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

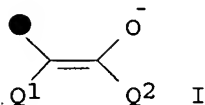
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000131837	A	20000512	JP 1999-227083	19990811
			<--	
JP 3889530	B2	20070307		
US 6153356	A	20001128	US 1999-374846	19990816
			<--	
PRIORITY APPLN. INFO.:			JP 1998-230373	A 19980817
			<--	

OTHER SOURCE(S): MARPAT 132:341204

ED Entered STN: 15 May 2000
GI



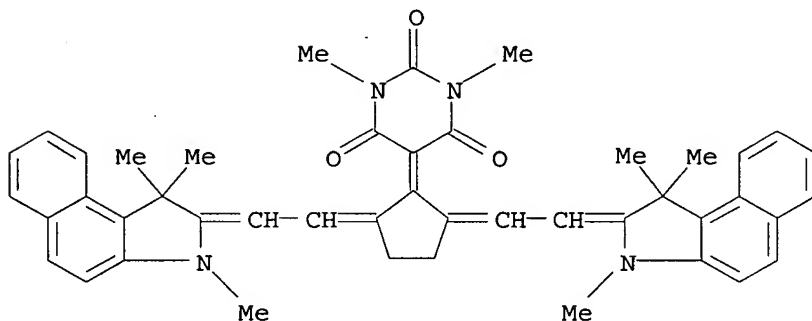
AB The title composition contains (A) ethylenically unsatd. compound, (B) cyanine dye, and (C) photopolymer. initiator. In the composition, the cyanine dye has a structure in which heteroatoms (O, S, or N) are connected by polymethine chains having ≥ 1 substituent I (Q1, Q2 = substituents; Q1 may connect with Q2 to form a ring). Preferably, the substituent I is (thio)barbituric acid group. The lithog. printing plate has a layer of the photopolymerizable composition on a support, and the layer is exposed to light at 700-1300 nm and developed with an alkali solution for image formation. The photopolymerizable composition has high sensitivity to visible light and near-IR light.

IT 259133-57-8

(photopolymerizable composition containing cyanine dye for sensitivity to visible light and near-IR light for lithog. printing plate)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-027

ICS C08F002-48; G03F007-00; G03F007-004; G03F007-028

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 27

IT 259133-57-8 259133-58-9

(photopolymerizable composition containing cyanine dye for sensitivity to visible light and near-IR light for lithog. printing plate)

L44 ANSWER 31 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:129635 HCAPLUS

DOCUMENT NUMBER: 132:174431

TITLE: Positive-working photosensitive composition and presensitized lithographic plate

INVENTOR(S): Urano, Toshiyoshi; Minakami, Junji

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000056452	A	20000225	JP 1998-222567	19980806
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JP 3772542	B2	20060510		
PRIORITY APPLN. INFO.:			JP 1998-222567	19980806
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OTHER SOURCE(S): MARPAT 132:173431

ED Entered STN: 25 Feb 2000

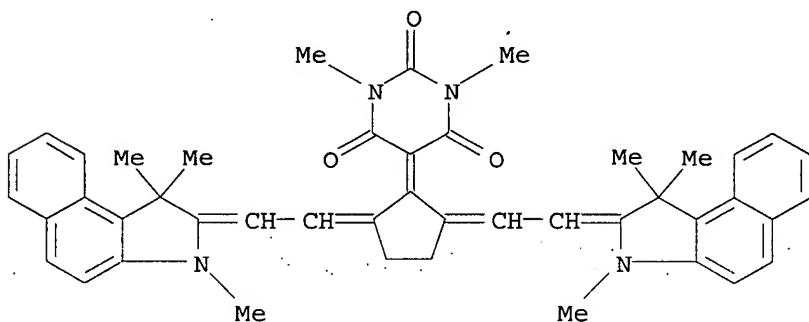
AB The title photosensitive composition, containing a light-heat-converting substance which absorbs light from an imagewise exposure light source to convert to heat and an alkali-soluble resin, employs a near IR ray-absorbing dye having a structure in which the heterocycles combine through a polymethine chain having a (thio)barbituric acid group as a substituent as the light-heat-converting substance. A presensitized lithog. plate is also claimed, comprising a support coated with a photosensitive layer made of the composition. The composition shows high sensitivity toward light in near IR regions and improved development latitude.

IT 259133-57-8P

(presensitized lithog. plate containing polymethine dye with barbituric acid group as lithog. heat-converting agent)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-004

ICS G03F007-00; G03F007-023

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

IT 35464-74-5P, m-Cresol-p-cresol-formaldehyde-phenol copolymer

259133-57-8P 259133-58-9P

(presensitized lithog. plate containing polymethine dye with barbituric acid group as lithog. heat-converting agent)

L44 ANSWER 32 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:137104 HCAPLUS

DOCUMENT NUMBER: 130:202872
 TITLE: Heat-developable silver halide color photographic material without colloidal silver and imaging method using it
 INVENTOR(S): Araga, Jun
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 98 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11052525	A	19990226	JP 1997-221926	19970804

PRIORITY APPLN. INFO.: JP 1997-221926 19970804

ED Entered STN: 03-Mar 1999
 AB The material with IR transmittance at 950 nm 1.7-3.5 has ≥ 1 photog. layer containing Ag halide, a color developer, a coupler, and a binder on a transparent support to show the total weight of Ag to be coated 0.5-5.0 g/m² but no nonphotosensitive colloidal Ag. The title imaging involves processing of the above material at 60-100° for 5-60 s. Due to absence of colloidal Ag, the image can be read by a CCD image sensor and printed on hard copy materials. Although free of colloidal Ag, it has good transporting property in cameras and processors and gives high-quality images by rapid processing.

IT 110992-87-5P

(IR-absorbing dye; heat-developable silver halide color photog. material without colloidal silver and its imaging)

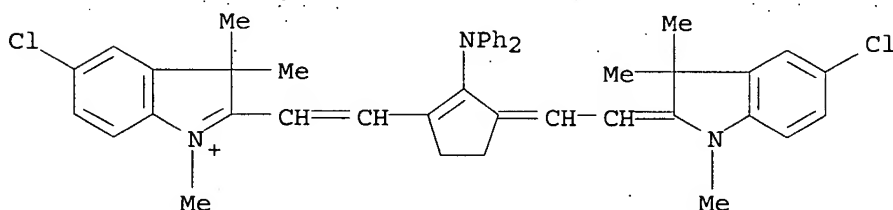
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

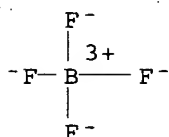


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03C007-392
ICS G03C001-00; G03C001-035; G03C001-40; G03C001-42; G03C001-74;
G03C008-40
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
IT 110992-87-5P 177167-90-7P 177167-94-1P
(IR-absorbing dye; heat-developable silver halide color photog.
material without colloidal silver and its imaging)

L44 ANSWER 33 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:42556 HCAPLUS
DOCUMENT NUMBER: 130:102883
TITLE: Near IR-sensitive photoimageable/photopolymerizable
compositions
INVENTOR(S): Weed, Gregory Charles; Fabricius, Dietrich Max
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 889363	A1	19990107	EP 1998-100692	19980116
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EP 889363	B1	20051005		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AU 746399	B2	20020502	AU 1998-52167	19980120
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AU 9852167	A	19990812		
JP 11149154	A	19990602	JP 1998-91870	19980403
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US 2002064728	A1	20020530	US 2001-775988	20010202
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US 2004191681	A1	20040930	US 2004-819820	20040407
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US 6861201	B2	20050301		
PRIORITY APPLN. INFO.:				
			US 1996-708476	A 19960905
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			US 1997-888242	A 19970703
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			US 2001-775988	A1 20010202
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OTHER SOURCE(S): MARPAT 130:102883

ED Entered STN: 21 Jan 1999

AB Novel photoimageable/photopolymerizable compns. are disclosed which
contain dyes that absorb strongly in the near IR regions. These dyes
are useful as photosensitizers for initiating a variety of

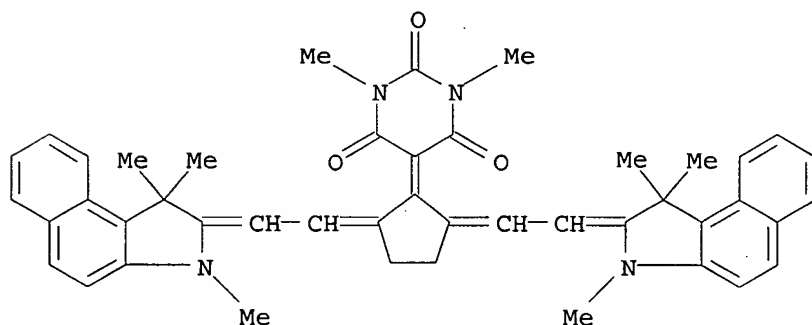
photoimaging and photopolymer. reactions. Imaging media are disclosed herein which are sensitive in the near IR regions and which can initiate polymerization of ethylenically unsatd. monomer components in neg.-acting photopolymer systems and/or which can initiate conversion of leuco dyes to their corresponding colored dye form. These imaging media comprise either a near IR dye photochem. sensitizer, a hexaarylbiimidazole photoinitiator, a chain transfer agent, and a photopolymerizable material. These imaging media are useful in a variety of photopolymer products, including photoresists, proofing films, and holog. recording films.

IT 259133-57-8P

(preparation and use as photosensitizer for photopolymerizable photoimaging compns.)

RN 259133-57-8 HCAPLUS

CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[2,5-bis[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]cyclopentylidene]-1,3-dimethyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-031

ICS G03C001-73; B41M005-36

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 100498-66-6P 219537-49-2P 219537-52-7P 219537-55-0P

219537-57-2P 219537-58-3P 219537-60-7P 219537-61-8P

259133-57-8P

(preparation and use as photosensitizer for photopolymerizable photoimaging compns.)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 34 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:505247 HCAPLUS

DOCUMENT NUMBER: 129:195748

TITLE: Silver halide color photographic material containing an infrared-absorbing dye to improve processing stability and storage stability

INVENTOR(S): Ishii, Yoshio; Yabuki, Yoshiji

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 75 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10207010	A	19980807	JP 1997-19591	19970120
US 6210871	B1	20010403	US 1998-9773	19980120
PRIORITY APPLN. INFO.:			JP 1997-19591	A 19970120

ED Entered STN: 14 Aug 1998

AB Claimed color photog. material having ≥ 1 each of blue-, green-, and red-sensitive silver halide emulsion layers and a light-insensitive hydrophilic colloid layer containing black silver particles on a support is characterized in (1) that the material contains an IR-absorbing dye having the absorption maximum at 700-1100 nm, (2) that the silver coating weight for silver halide and colloidal silver is ≤ 3.2 g/m² and (3) that the transmission d. of the material at the 950 nm is ≥ 1.7 . It reduces the variance of photog. properties during consecutive laboratory operation, and improves the film transport in the processing machine, and also improve the shelf life of the material. Suitable dyes are di-, tri-, and tetra-carbocyanine dyes. Thus, 11-diphenylamino-10,13-ethylene-1,3,4-trimethyl-5-carboxybenzopyrrolidino-tetracarboxyanine was added to the antihalation layer containing colloidal silver particles.

IT 110992-87-5P

(dye; color photog. material containing IR-absorbing dye and colloidal Ag to improve processing stability and storage stability)

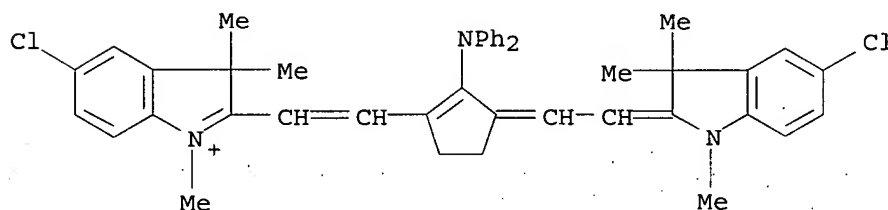
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

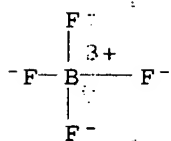


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS

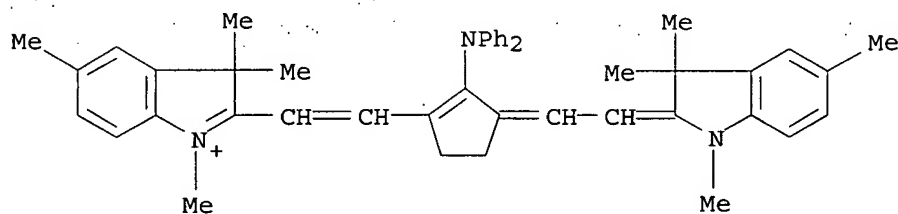


IC ICM G03C001-825
 ICS G03C001-74; G03C007-00
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 110992-87-5P 177167-90-7P 177167-94-1P 177168-07-9P
 177168-08-0P 177168-15-9P 186799-79-1P
 (dye; color photog. material containing IR-absorbing dye and colloidal Ag to improve processing stability and storage stability)

L44 ANSWER 35 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:765501 HCAPLUS
 DOCUMENT NUMBER: 128:95296
 TITLE: Photosensitive material for laser beam exposure
 INVENTOR(S): Totani, Ichizo; Harada, Toru
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09311393	A	19971202	JP 1996-151539	19960523
JP 3462663	B2	20031105		
PRIORITY APPLN. INFO.:			JP 1996-151539	19960523

ED Entered STN: 08 Dec 1997
 AB The material comprises a support having an absorbance of ≥ 0.3 at exposure wavelength and ≤ 0.2 at 500 nm and a Ag halide emulsion layer, coated thereon, containing Ag halide grains with average grain size 0.01-0.4 μm . The material may be a heat-developable photosensitive material. The material provides high quality images without interference stripes by using laser beams.
 IT 183745-01-9
 (laser beam exposure photog. film using light absorption-controlled support)
 RN 183745-01-9 HCAPLUS
 CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3,5-tetramethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)
 CM 1
 CRN 183745-00-8
 CMF C45 H48 N3

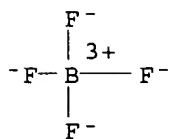


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IT 110992-87-5P

(laser beam exposure photog. film using light absorption-controlled support)

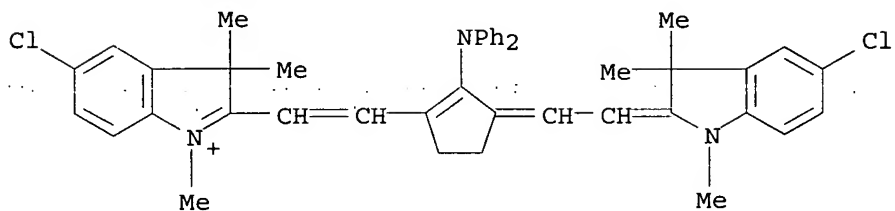
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

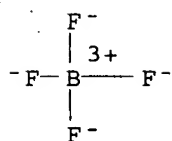


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03C001-00
 ICS G03C001-035; G03C001-498; G03C001-74; G03C005-08
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 183745-01-9 200863-72-5
 (laser beam exposure photog. film using light absorption-controlled support)
 IT 110992-87-5P
 (laser beam exposure photog. film using light absorption-controlled support)

L44 ANSWER 36 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:762033 HCAPLUS

DOCUMENT NUMBER: 128:95412

TITLE: Heat-developable silver halide photosensitive material

INVENTOR(S): Totani, Ichizou; Harada, Toru

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09304869	A	19971128	JP 1996-140904	19960510
			<--	
JP 3723634	B2	20051207		
PRIORITY APPLN. INFO.:			JP 1996-140904	19960510
			<--	

ED Entered STN: 06 Dec 1997

AB The material, exposed to ≥ 700 nm laser light, contains ≤ 0.1 - μm Ag halide particles in an emulsion layer with absorbance ≥ 0.3 at the exposure wavelength. The material may contain a cyanine dye in the emulsion layer to control its absorbance. The material gives images without generation of interference fringes.

IT 110992-87-5P

(dye; heat-developable silver halide photosensitive material giving image without interference fringe)

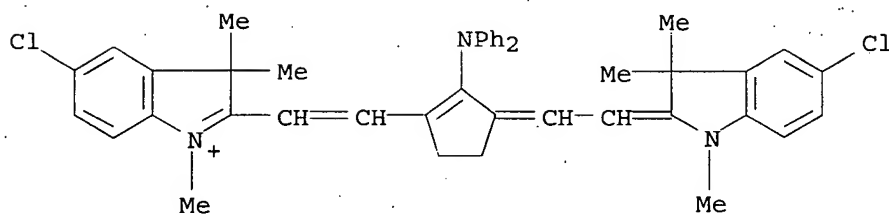
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

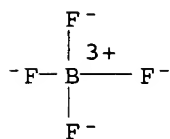


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IT 183745-01-9

(dye; heat-developable silver halide photosensitive material giving image without interference fringe)

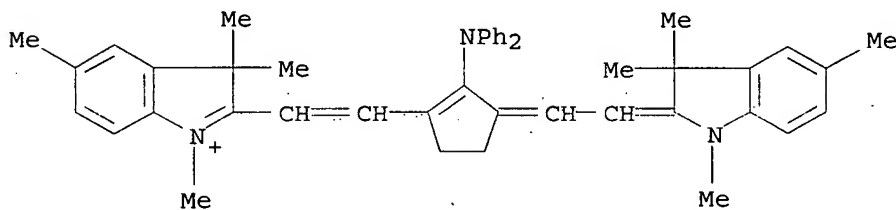
RN 183745-01-9 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylenylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3,5-tetramethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 183745-00-8

CMF C45 H48 N3

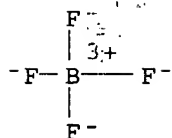


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03C001-498
 ICS G03C001-00; G03C001-035
 CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41
 IT 110992-87-5P
 (dye; heat-developable silver halide photosensitive material giving image without interference fringe)
 IT 183745-01-9 200863-72-5
 (dye; heat-developable silver halide photosensitive material giving image without interference fringe)

L44 ANSWER 37 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:602510 HCAPLUS

DOCUMENT NUMBER: 127:301317

TITLE: Heat development photosensitive material with improved lightfastness

INVENTOR(S): Harada, Toru; Fujiwara, Itsuo

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09230531	A	19970905	JP 1996-60376	19960223

<--

PRIORITY APPLN. INFO.: JP 1996-60376 19960223

<--

ED Entered STN: 22 Sep 1997

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title material contains a dye I (Z1, Z2 = nonmetal atoms required to form a 5 or 6- membered N-containing heterocycle which may be condensed; R1, R2 = alkyl, alkenyl, aralkyl; L = linking group composed of 5, 7 or 9 methine groups linked by conjugated double bonds; a, b, c = 0 or 1; X = anion, when X is an anion containing M in III shown below, the compound III, IV or V is not necessary) or II (R3-10 = H, alkyl, cycloalkyl, aryl, aralkyl, R3 and R4, R5 and R6, R7 and R8, R9 and R10, R4 and R5 or R8 and R9 may form a 5 or 6-membered ring), and ≥1 compound selected from Ln1Mm1 (III; L = ligand; M = Ni, Co, Cu, Pt, Pd, Fe, Mn, or Zn; n1 = 1-10; m1 = 1 or 2), IV (R11-14 = H or alkyl; X = anion), and V [R15 = H, halo, CONHR22, SO2NHR22, NHSO2R22, NHCOR22, NHCONHR22 (R22 = alkyl or aryl); R16, R17 = H,

alkyl, halo, NHCOR₂₂, NHSO₂R₂₂, nonmetal atoms which link each other to form an aromatic ring; R₁₈, R₁₉ = H, alkyl, alkoxy, OH, halo; R₂₀, R₂₁ = alkyl, aralkyl, atoms linking to form a heterocycle; n₂ = 0-2]. The material may be used in IR laser exposure. The dyes, which remains after heat-development, shows good lightfastness, and the material gives clear images with high sharpness. Thus, a PET film was coated with an antihalation layer containing the dye and the decoloration-preventing agent on the back side, and coated with a photosensitive emulsion layer and a protective layer successively on the front side to give a heat development photosensitive film.

IT 197087-00-6

(heat-developable photosensitive material containing cyanine or squarylium IR-absorbing dye and decoloration-preventing agent)

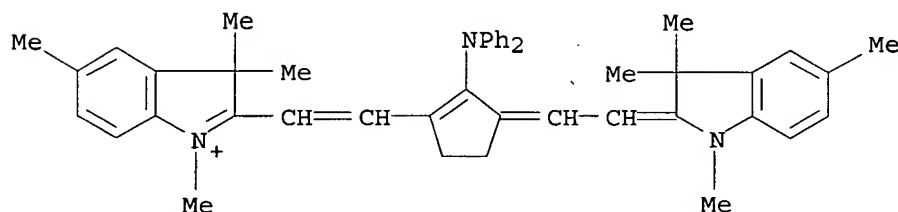
RN 197087-00-6 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3,5-tetramethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 183745-00-8

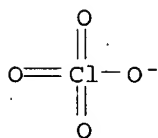
CMF C45 H48 N3



CM 2

CRN 14797-73-0

CMF Cl O4



IC ICM G03C001-498

ICS G03C001-00; G03C001-22

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 161375-44-6 197087-00-6 197087-01-7 197087-02-8

(heat-developable photosensitive material containing cyanine or squarylium IR-absorbing dye and decoloration-preventing agent)

L44 ANSWER 38 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:383578 HCAPLUS

DOCUMENT NUMBER: 127:25892

TITLE: Silver halide photographic material containing

infrared absorbing dye and image formation using it

INVENTOR(S): Harada, Toru; Yabuki, Yoshiharu; Suzuki, Keiichi; Wariishi, Koji; Ono, Shigeru

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

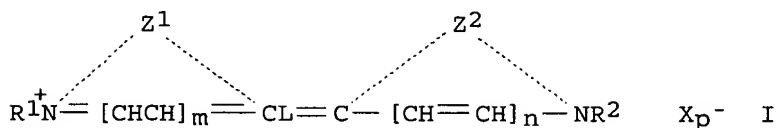
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09096891	A	19970408	JP 1995-269097	19950922
			<--	
JP 3616173	B2	20050202		
US 5853969	A	19981229	US 1997-980304	19971128
			<--	
PRIORITY APPLN. INFO.:			JP 1994-227983	A 19940922
			<--	
			JP 1994-279297	A 19941114
			<--	
			JP 1995-207406	A 19950724
			<--	
			JP 1995-208569	A 19950725
			<--	
			US 1995-532880	A3 19950922
			<--	

ED Entered STN: 19 Jun 1997

GI



AB In the title material comprising a support coated with ≥ 1 Ag halide emulsion layer and ≥ 1 nonphotosensitive hydrophilic colloid layer and containing a dye having an absorption maximum wavelength in the IR region of 700-1100 nm in the emulsion or colloid layer, the dye is dispersed in the layer in a state of solid fine particles that are not removed by processing solns. The dye may be a cyanine dye I (Z1, Z2 = nonmetal atoms to form a 5- or 6- membered N-containing heterocycle which may be condensed; R1, R2 = alkyl, alkenyl, aralkyl; L = linking group in which 5, 7 or 9 methine groups link so that the double bonds are conjugated; m, n, p = 0, 1; X = anion) or a lake cyanine dye DAM.Yn (D = skeleton of cyanine dye I; A = anionic dissociation group linking to D as substituents; Y = cation; m = 2-5; n = 1-5). The title process comprises the steps of: imagewise exposing the material; detecting the insertion of the exposed material into an automatic processor by means of an IR ray detector; and operating the processor by the signal from the detector to process the material. The film is detected by IR ray without increasing the amount of the replenisher.

IT 110992-87-5P

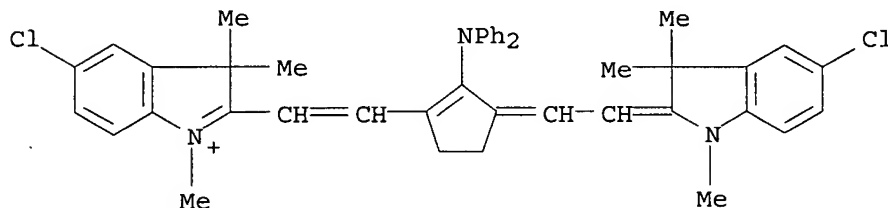
(photog. film containing solid-dispersed IR-absorbing dye)

RN 110992-87-5 HCAPLUS
 CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

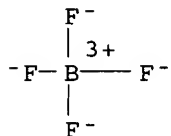


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03C001-40

ICS G03C005-29; G03D003-00

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 110992-87-5P 177167-90-7P 177167-94-1P 177168-07-9P

177168-08-0P 186799-79-1P 190077-07-7P

(photog. film containing solid-dispersed IR-absorbing dye)

L44 ANSWER 39 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:724227 HCAPLUS

DOCUMENT NUMBER: 125:331559

TITLE: Solid particle dispersions of cyanine compounds with long-wave absorbance

INVENTOR(S): Harada, Tooru; Yabuki, Yoshiharu

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

JP 08245902

A

19960924

JP 1995-54026

19950314

PRIORITY APPLN. INFO.:

JP 1995-54026

19950314

OTHER SOURCE(S): MARPAT 125:331559

ED Entered STN: 11 Dec 1996

AB The title dispersions have absorbance at a wave length which is at least 50 nm longer than the wave length at which the solns. of the cyanine compds. have the maximum absorbance. The cyanine compound dispersions are especially useful as dye for photosensitive material, which can be used in normal light and be recognized by a sensor. A cyanine compound prepared from 1,2,3,3-tetramethyl-5-chloroindolenium p-toluenesulfonate and N-(2,5-dianilinomethylenecyclopentylidene)-diphenylammonium perchlorate had λ_{\max} 800.8 nm in chloroform; a film formed from a dispersion of the compound in CM-cellulose and glass beads had λ_{\max} 910 nm.

IT 110992-87-5

(solid particle dispersions of cyanine compds. with long-wave absorbance)

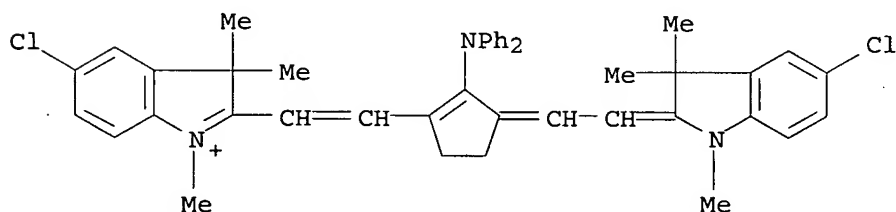
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

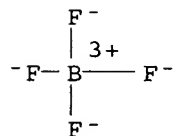


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



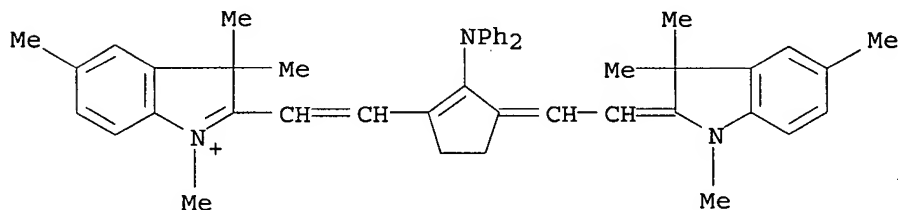
IT 183745-01-9

(solid particle dispersions of cyanine compds. with long-wave absorbance)

RN 183745-01-9 HCAPLUS
CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3,5-tetramethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

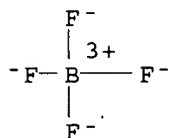
CM 1

CRN 183745-00-8
CMF C45 H48 N3



CM 2

CRN 14874-70-5
CMF B F4
CCI CCS



IC ICM C09B067-46
ICS G03C001-83
ICA C09B023-00
CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)
Section cross-reference(s): 74
IT 110992-87-5
(solid particle dispersions of cyanine compds. with long-wave
absorbance)
IT 177167-98-5 177168-00-2 183745-01-9 183745-04-2
183745-07-5 183745-10-0 183745-11-1 183745-13-3 183745-15-5
183745-17-7 183745-18-8 183745-19-9 183745-21-3 183745-23-5
183745-24-6 183745-27-9 183745-30-4 183745-33-7 183745-35-9
183745-36-0 183745-38-2 183745-40-6 183745-42-8 183745-44-0
183745-45-1 183745-47-3 183745-49-5 183745-51-9 183745-53-1
183745-55-3 183745-57-5
(solid particle dispersions of cyanine compds. with long-wave
absorbance)

L44 ANSWER 40 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:332371 HCAPLUS
DOCUMENT NUMBER: 124:356143
TITLE: Silver halide photographic material containing
infrared-absorbing colorant

INVENTOR(S): Harada, Toru; Suzuki, Keiichi; Ohno, Shigeru;
 Koji, Wariishi; Yabuki, Yoshiharu
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 54 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 703494	A1	19960327	EP 1995-114966	19950922
EP 703494	B1	20020508		
R: DE, FR, GB, NL				
US 5714307	A	19980203	US 1995-532880	19950922
US 5853969	A	19981229	US 1997-980304	19971128
PRIORITY APPLN. INFO.:			JP 1994-227983	A 19940922
			US 1995-532880	A3 19950922

OTHER SOURCE(S): MARPAT 124:356143

ED Entered STN: 07 Jun 1996

AB A silver halide photog. material comprises, on a support, at least one silver halide emulsion layer and at least one non-light-sensitive hydrophilic colloidal layer. A silver halide emulsion layer or a hydrophilic colloidal layer contains a colorant having the absorption maximum wavelength within the IR region of 700 to 1100 nm. The colorant is in the form of solid particles dispersed in the silver halide emulsion layer or in the hydrophilic colloidal layer. The solid particles cannot substantially be removed by a processing solution of the silver halide photog. material. An image-forming process employing the silver halide photog. material is also disclosed.

IT 110992-87-5P

(preparation and use as IR-absorbing dye for silver halide photog. materials)

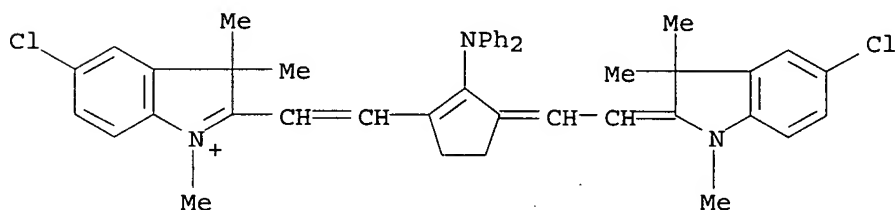
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

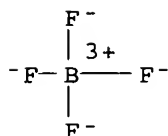
CRN 110992-86-4

CMF C43 H42 Cl2 N3



CM 2

CRN 14874-70-5
 CMF B F4
 CCI CCS



IC ICM G03C001-83
 ICS G03C001-20
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 110992-87-5P 177167-90-7P 177167-94-1P 177168-08-0P
 177168-15-9P
 (preparation and use as IR-absorbing dye for silver halide photog. materials)

L44 ANSWER 41 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:593593 HCAPLUS

DOCUMENT NUMBER: 117:193593

TITLE: Synthesis of bridge chain heptamethine cyanine dyes and their spectroscopic properties

AUTHOR(S): Yao, Zuguang; Fang, Xi; Zhu, Zhenghua; Ye, Lin; Yang, Xiangchun

CORPORATE SOURCE: Res. Inst. Fine Chem., East China Univ. Chem. Technol., Shanghai, 200237, Peop. Rep. China

SOURCE: Gaodeng Xuexiao Huaxue Xuebao (1992), 13(2), 256-8

CODEN: KTHPDM; ISSN: 0251-0790

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 15 Nov 1992

AB The absorption and fluorescence emission spectra of 5 bridge-chain heptamethine cyanine dyes were determined. Their laser tuning range, center laser wavelength, and conversion efficiency were examined with the frequency-doubled YAG laser as a pump source.

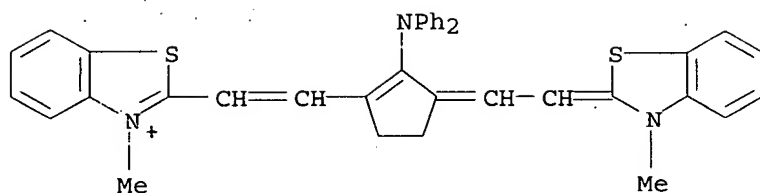
IT 139361-79-8
 (absorption and fluorescence emission spectra and laser properties of)

RN 139361-79-8 HCAPLUS

CN Benzothiazolium, 2-[2-[2-(diphenylamino)-3-[(3-methyl-2(3H)-benzothiazolylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-3-methyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

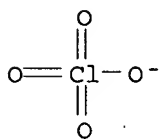
CRN 139361-78-7
 CMF C37 H32 N3 S2



CM 2

CRN 14797-73-0

CMF Cl 04



CC 41-6 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)
IT 26529-09-9 53655-17-7 55281-19-1 123104-68-7 **139361-79-8**
(absorption and fluorescence emission spectra and laser properties
of)

L44 ANSWER 42 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:108290 HCAPLUS

DOCUMENT NUMBER: 116:108290

TITLE: Study on tricarbo-cyanine dyes

AUTHOR(S): Yao, Zuguang; Fang, Xi; Zhao, Faxiang; Zhu,
ZhenghuaCORPORATE SOURCE: Res. Inst. Fine Chem., East China Univ. Chem.
Technol., Shanghai, 200237, Peop. Rep. China

SOURCE: Yingyong Huaxue (1991), 8(6), 82-4

CODEN: YIHUED; ISSN: 1000-0518

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 20 Mar 1992

AB Nine tricarbo-cyanine dyes containing a disubstituted amino group in the
bridging chain were prepared and their absorption and IR sensitization
spectra were given. The absorption wavelength of dyes containing Se, S,
and O hetero atoms was 809.4, 803.6, and 734.4 nm, resp.

IT **139361-79-8P**

(dyes, preparation and absorption and IR sensitization spectra of)

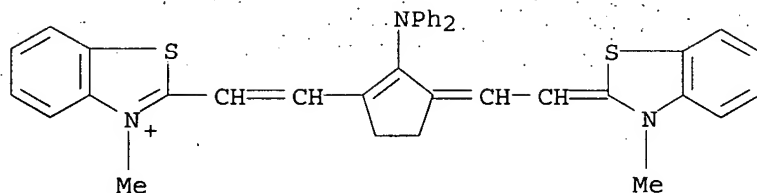
RN 139361-79-8 HCAPLUS

CN Benzothiazolium, 2-[2-[2-(diphenylamino)-3-[(3-methyl-2(3H)-
benzothiazolylidene)ethylydene]-1-cyclopenten-1-yl]ethenyl]-3-methyl-,
perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 139361-78-7

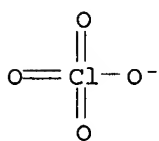
CMF C37 H32 N3 S2



CM 2

CRN 14797-73-0

CMF Cl 04



CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 74
 IT 26529-09-9P 33675-88-6P 53655-17-7P 54849-67-1P 55281-19-1P
 123104-68-7P 123129-54-4P 138966-26-4P **139361-79-8P**
 (dyes, preparation and absorption and IR sensitization spectra of)

L44 ANSWER 43 OF 43 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1987:626046 HCAPLUS.
 DOCUMENT NUMBER: 107:226046
 TITLE: Light-durable additives for indolenine laser recording medium and optical filters
 INVENTOR(S): Sato, Giichi; Shindo, Shigeto; Numa, Tatsuya; Sumiya, Mitsukuni
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62050187	A	19870304	JP 1985-188516	19850829
			<--	
JP 04065796	B	19921021		
PRIORITY APPLN. INFO.:			JP 1985-188516	19850829
			<--	

ED Entered STN: 12 Dec 1987
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The light durability of the indolenine dye of the formula I is improved by adding ≥ 1 or ≥ 2 compds. of the formula II-IV (R = alkyl, alkoxyalkyl, alkoxy alkoxyalkyl; A = V, VI, VII; B = H, Cl, NPh₂; R₁ = alkyl; E = Ph, naphthyl). A composition containing the indolenine dye and the additives may be used to form a laser recording medium and an IR optical filter.

IT 110992-87-5

(laser recording medium with recording layer of, containing light-durable additives, for improved light durability)

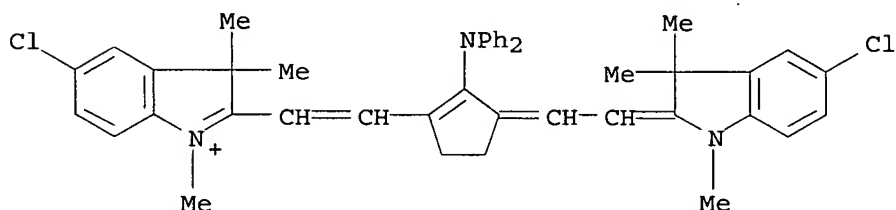
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

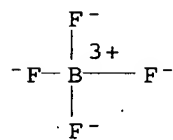


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM B41M005-26

ICS G11B007-24

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT	102185-07-9	110009-45-5	110992-54-6	110992-55-7	110992-57-9
	110992-58-0	110992-60-4	110992-62-6	110992-64-8	110992-66-0
	110992-68-2	110992-70-6	110992-72-8	110992-73-9	110992-75-1
	110992-77-3	110992-79-5	110992-81-9	110992-83-1	110992-85-3
	110992-87-5	110992-88-6	110992-90-0	110992-92-2	
	110992-93-3	110992-95-5	110992-97-7	110992-99-9	111024-10-3
	111024-12-5				

(laser recording medium with recording layer of, containing light-durable additives, for improved light durability)

=> d que 143

L2 8 SEA FILE=REGISTRY ABB=ON PLU=ON (110992-87-5/BI OR
 139361-79-8/BI OR 183745-01-9/BI OR 197087-00-6/BI OR
 259133-57-8/BI OR 442548-17-6/BI OR 442548-19-8/BI OR
 869557-67-5/BI)
 L3 SCR 2043
 L5 SCR 1841 AND 1993 AND 2040
 L9 STR

Hy~~~~G1~~~~Hy
 1 2 3

Ak~Cb~Ak
 @4 5 @6

Ak~O~Ak
 @7 8 @9

Ak @10 A @14

Ak~G2~Ak
 @11 12 @13

VAR G1=10/4-1 6-3/7-1 9-3/11-1 13-3

REP G2=(1-10) 14

NODE ATTRIBUTES:

NSPEC IS RC AT 14

DEFAULT MLEVEL IS ATOM

GGCAT IS PCY UNS AT 1

GGCAT IS PCY UNS AT 3

GGCAT IS UNS AT 4

GGCAT IS UNS AT 6

GGCAT IS UNS AT 7

GGCAT IS UNS AT 9

GGCAT IS UNS AT 10

GGCAT IS UNS AT 11

GGCAT IS UNS AT 13

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 1

ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 3

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L12 164 SEA FILE=REGISTRY SSS FUL L9 AND L3 AND L5

L17 SCR 1993 AND 2040

L22 STR

Hy~~~~G1~~~~Hy
 1 2 3

Ak~Cb~Ak
 @4 5 @6

Ak @10

VAR G1=10/4-1 6-3

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS PCY UNS AT 1

GGCAT IS PCY UNS AT 3

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 1

ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 3

ECOUNT IS M5 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L25 210 SEA FILE=REGISTRY SSS FUL L22 AND L3 AND L17
 L29 259 SEA FILE=REGISTRY ABB=ON PLU=ON L12 OR L25
 L30 96 SEA FILE=HCAPLUS ABB=ON PLU=ON L29
 L31 58 SEA FILE=HCAPLUS ABB=ON PLU=ON L2
 L32 154 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 OR L31
 L33 135 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 AND (1840-2003)/PRY,AY
 ,PY
 L34 12620 SEA FILE=HCAPLUS ABB=ON PLU=ON "LITHOGRAPHIC PLATES"+PFT,
 NT/CT
 L35 1806 SEA FILE=HCAPLUS ABB=ON PLU=ON "IR MATERIALS"+PFT,NT/CT
 L36 175232 SEA FILE=HCAPLUS ABB=ON PLU=ON "OPTICAL MATERIALS"+PFT,NT
 /CT
 L37 47 SEA FILE=HCAPLUS ABB=ON PLU=ON L33 AND (L34 OR L35 OR
 L36)
 L38 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 NOT L31
 L40 134 SEA FILE=HCAPLUS ABB=ON PLU=ON MITSUMOTO, T?/AU
 L41 2095 SEA FILE=HCAPLUS ABB=ON PLU=ON NAKAMURA, I?/AU
 L42 6 SEA FILE=HCAPLUS ABB=ON PLU=ON (L40 OR L41) AND L32
 L43 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 NOT L42

=> d l43 1-16 ibib ed abs hitstr hitind

L43 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:259933 HCAPLUS

DOCUMENT NUMBER: 142:332395

TITLE: Molecule arrays and method for preparation
including the binding to functional groups

INVENTOR(S): Howorka, Stefan; Pammer, Patrick

PATENT ASSIGNEE(S): Upper Austrian Research GmbH, Austria

SOURCE: PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005025737	A2	20050324	WO 2004-AT316	20040916
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WO 2005025737	A3	20050818		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,				
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,				
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,				
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,				
MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,				
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,				
VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,				
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,				
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL,				
PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,				
GW, ML, MR, NE, SN, TD, TG				
AT 2003001455	A	20051115	AT 2003-1455	20030916
<--				
AT 414047	B	20060815		

AT 501110

A1

20060615

AT 2004-389

20040305

EP 1663473

A2

20060607

EP 2004-761038

20040916

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

PRIORITY APPLN. INFO.:

AT 2003-1455

A 20030916

AT 2004-389

A 20040305

WO 2004-AT316

W 20040916

ED Entered STN: 25 Mar 2005

AB The invention relates to assemblies for bonding mols. comprising bondable functional groups, which are present on a solid supporting material as individual mol. functional groups or multiple identical functional groups. Said assemblies are characterized in that the d. of the individual functional groups or multiple functional groups on the solid supporting material is between 104 and 1010 individual or multiple functional groups per cm2 and that there are no addnl. bondable functional groups within a selected distance d from any individual bondable functional group or multiple functional group for at least 95 % and in particular at least 99 % of the individual or multiple functional groups.

IT 848236-00-0P

(mol. arrays and method for preparation including the binding to functional groups)

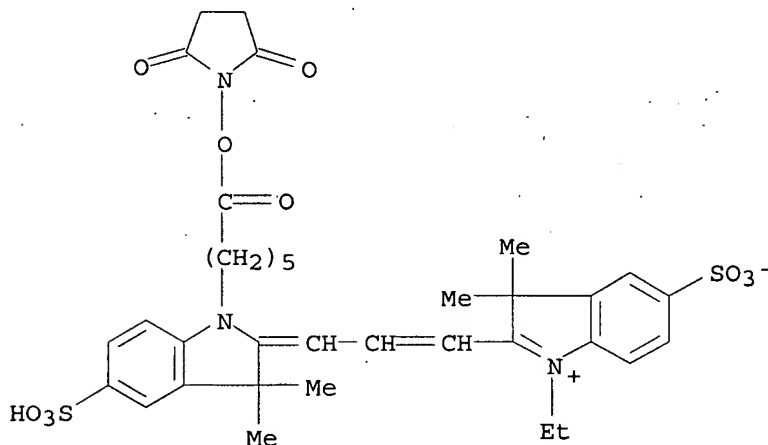
RN 848236-00-0 HCAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt, polymer with α -(2-aminoethyl)- ω -(2-aminoethoxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

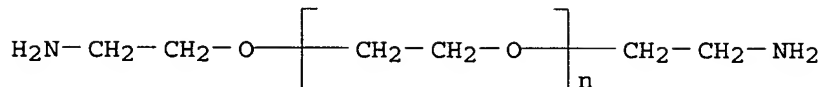
CRN 146368-16-3

CMF C35 H41 N3 O10 S2



CM 2

CRN 24991-53-5
 CMF (C2 H4 O)_n C4 H12 N2 O
 CCI PMS



IC ICM B01J019-00
 ICS C12Q001-68
 CC 9-1 (Biochemical Methods)
 Section cross-reference(s): 3
 IT Atomic force microscopy
 Chemisorption
 Combinatorial library
 DNA microarray technology
 Electron beam lithography
Fluorescent substances
 Functional groups
 Immobilization, molecular or cellular
 Ion beam lithography
 Membranes, nonbiological
 Microarray technology
 Molecular recognition
 Nanoparticles
 Protein microarray technology
 Scanning tunneling microscopy
 Size-exclusion chromatography
 (mol. arrays and method for preparation including the binding to functional groups)
 IT 848236-00-0P
 (mol. arrays and method for preparation including the binding to functional groups)

L43 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:239208 HCAPLUS
 DOCUMENT NUMBER: 142:311998
 TITLE: Assaying transferase activity by using an artificial, multifunctional substrate comprising a small-molecule component linked to biopolymer-substrate-mimetic component
 INVENTOR(S): Gellibolian, Robert; Rouhani, Riaz
 PATENT ASSIGNEE(S): USA
 SOURCE: PCT Int. Appl., 66 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005024380	A2	20050317	WO 2004-US29004	20040903
WO 2005024380	A3	20050526		
WO 2005024380	A9	20050707		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,

CH, CN, CO, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL,
PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2003-499863P

P 20030903

<--

OTHER SOURCE(S): MARPAT 142:311998

ED Entered STN: 18 Mar 2005

AB Embodiments of the present invention are directed to sensitive, specific, and com. feasible assays for transferase activity. Various embodiments of the present invention include artificial, multifunctional substrates specific for particular transferases that are chemical altered by the transferases to produce easily detectable, modified, multifunctional substrates. In one class of embodiments, the artificial, multifunctional substrate comprises a small-mol.-substrate component, or small-mol.-substrate-analog component, linked by a linking component to a biopolymer-substrate-mimetic or biopolymer-substrate-analog component. At least two, generally well-separated reporter moieties are included in the artificial, multifunctional substrate. The transferase, for which the artificial, multifunctional substrate is designed to serve as an assay reagent, catalyzes a generally covalent modification of the artificial, multifunctional substrate to produce a modified, artificial, multifunctional substrate reaction product in which the two reporter moieties are closely positioned to one another. When closely positioned to one another, the reporter moieties are detectable by one of various instrumental techniques. The artificial, multifunctional substrates for assaying protein kinase A, PCAF histone acetyltransferase, and protein arginine methyltransferase PRMT-1 are prepared

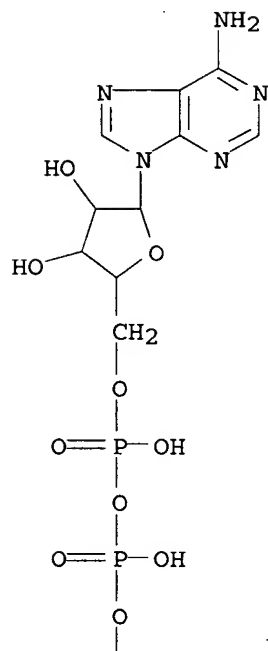
IT 848053-34-9P

(protein kinase A substrate; transferase determination using artificial, multifunctional substrate comprising small-mol. component linked to biopolymer-substrate-mimetic component)

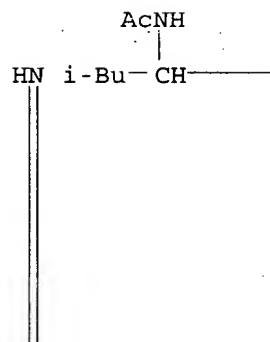
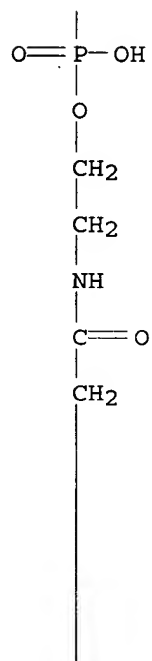
RN 848053-34-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-, 2-ether with N-acetyl-S-[9-(5'-adenylyloxy)-7,9-dihydroxy-7,9-dioxido-2-oxo-6,8-dioxa-3-aza-7,9-diphosphanon-1-yl]-L-cysteinyl-N6-[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]-N-(2-hydroxyethyl)-L-lysine inner salt, 8'-ether with N-acetyl-L-leucyl-L-arginyl-L-arginyl-L-alanyl-L-seryl-L-leucylglycyl-S-[2-[2-(3-hydroxy-1-oxopropyl)hydrazino]-2-oxoethyl]-L-cysteinyl-N6-[[6,7,7a,8a,9,10,16,18-octahydro-16,16,18,18-tetramethyl-14-sulfopyrano[3'',2'':3,4;5'',6'':3',4']dipyrido[1,2-a:1',2'-a']diindol-5-ium-2-yl]acetyl]-L-lysine inner salt (9CI) (CA INDEX NAME)

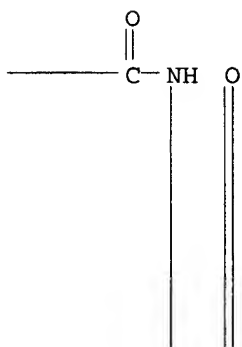
PAGE 1-A



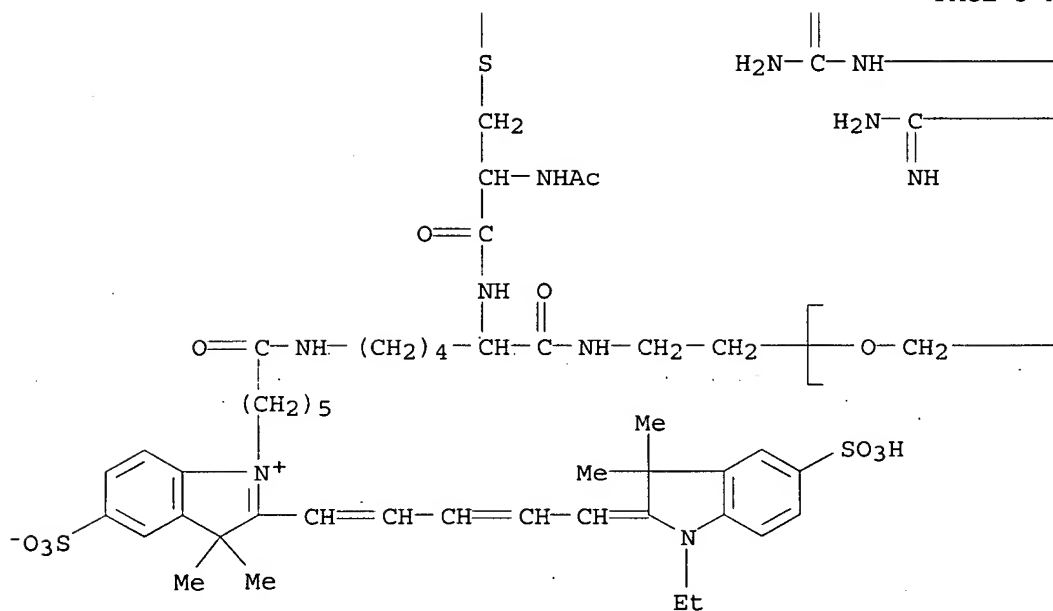
PAGE 2-A



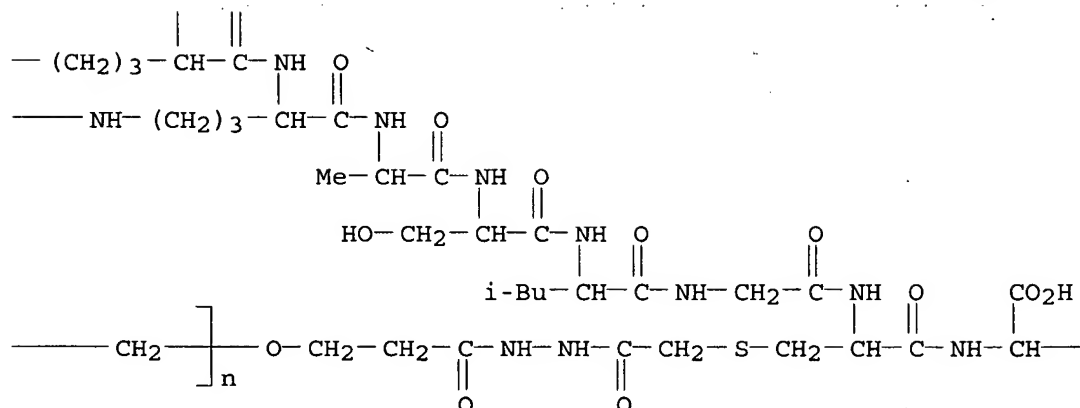
PAGE 2-B



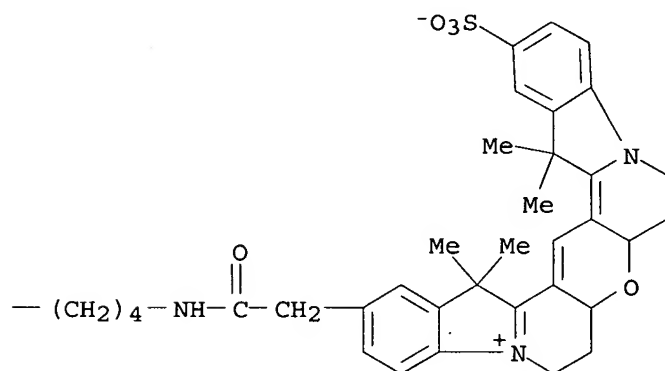
PAGE 3-A



PAGE 3-B



PAGE 3-C



IC ICM G01N
 CC 7-1 (Enzymes)
 IT Chromophores

Fluorescent dyes**Fluorescent substances**

(reporter moiety; transferase determination using artificial, multifunctional substrate comprising small-mol. component linked to biopolymer-substrate-mimetic component)

IT 848053-34-9P

(protein kinase A substrate; transferase determination using artificial, multifunctional substrate comprising small-mol. component linked to biopolymer-substrate-mimetic component)

L43 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1127141 HCAPLUS

DOCUMENT NUMBER: 142:75006

TITLE: Electroluminescent conjugated polymers containing phosphorescent moieties and the application thereof in LED

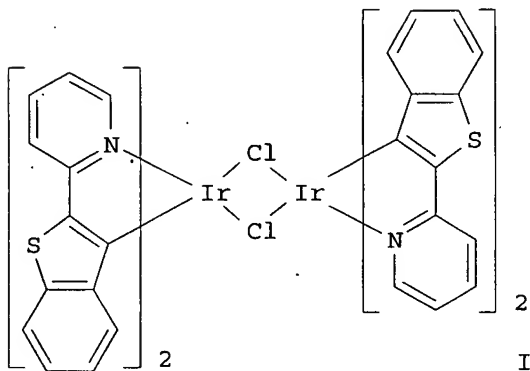
INVENTOR(S): Chen, Show-An; Chen, Xiwen; Liao, Jin-Long; Liang, Yongmin; Chen, Yen-Chun

USHA SHRESTHA EIC 1600 REM 1A64

PATENT ASSIGNEE(S): National Tsing Hua University, Taiwan
 SOURCE: U.S. Pat. Appl. Publ., 25 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004260047	A1	20041223	US 2003-735693	20031216
			<--	
US 7098295	B2	20060829		
US 2006217527	A1	20060928	US 2006-440102	20060525
			<--	
PRIORITY APPLN. INFO.:			TW 2003-92116457	A 20030617
			<--	
			US 2003-735693	A3 20031216
			<--	

ED Entered STN: 24 Dec 2004
 GI



AB This invention provides electroluminescent conjugated polymers grafted with highly efficient phosphorescent organometallic complexes (such as iridium, platinum, osmium, rubidium, etc.) and charge transport moieties (such as oxadiazole, thiadiazole, triazole, pyridine, pyrimidine, substituted or non-substituted tertiary arylamines, substituted or non-substituted quaternary arylammonium salts, substituted or non-substituted tertiary heterocyclic aromatic amines, substituted or non-substituted quaternary heterocyclic aromatic ammonium, etc.). The emissive polymers (fully conjugated or limited conjugating length) covering the full visible range can be prepared. The polymeric light emitting diodes with these materials can be used as indicators, light source and display for cellular phones, digital camera, pager, portable computer, personal data acquisition (PDA), watch, hand-held video game, billboard, etc. A typical polymer complex was manufactured by reaction of Ir complex I with 9-(11,13-dioxotetradecyl)-2,7-dibromo-9-hexylfluorene 15 h in 2-ethoxyethanol in presence of Na₂CO₃ at reflux, and polymerization of the resulting intermediate with 9,9-di-n-octyl-2,7-dibromofluorene and 9,9-di-n-octylfluorene-2,7-bis(trimethylene boronate) 5 days at 85° in PhMe in the presence of Pd(PPh₃)₄,

K₂CO₃, and Aliquat 336 with endcapping by Ph dioxopropyleneboronate and tert-butylphenyl bromide.

IT 811862-30-3P

(electroluminescent conjugated polymers containing phosphorescent transition metal complex moieties for in LED)

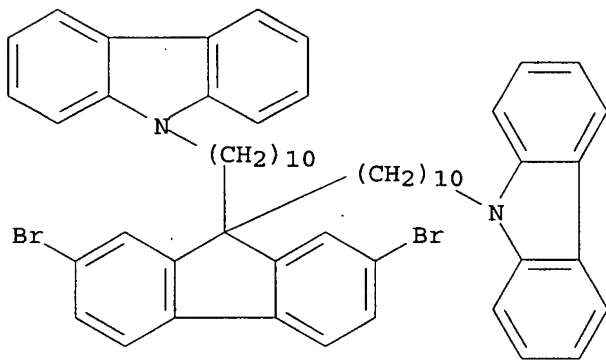
RN 811862-30-3 HCAPLUS

CN Iridium, [14-(2,7-dibromo-9-hexyl-9H-fluoren-9-yl)-2,4-tetradecanedionato- κ O, κ O']bis[2-(2-pyridinyl- κ N)benzo[b]thien-3-yl- κ C]-, polymer with 9,9'-[(2,7-dibromo-9H-fluoren-9-ylidene)di-10,1-decanediyl]bis[9H-carbazole] (9CI) (CA INDEX NAME)

CM 1

CRN 811862-27-8

CMF C57 H62 Br2 N2

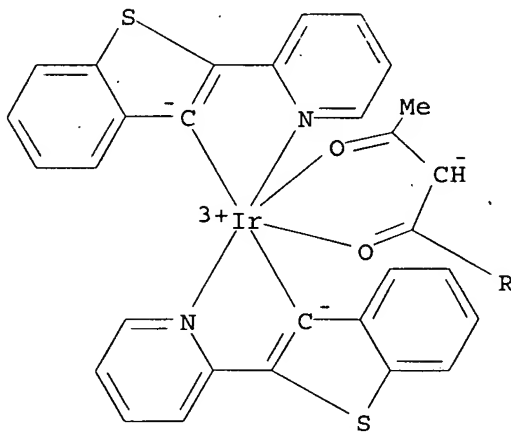


CM 2

CRN 811862-25-6

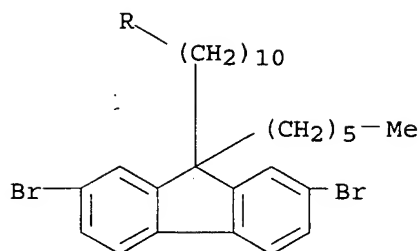
CMF C59 H59 Br2 Ir N2 O2 S2

CCI CCS



PAGE 1-A

PAGE 2-A



IC ICM C08G061-00

INCL 528004000; 528380000; 528423000; 528480000

CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 29, 74

IT Electroluminescent devices

Phosphorescent substances

(electroluminescent conjugated polymers containing phosphorescent transition metal complex moieties for in LED)

IT **Luminescent substances**

(electroluminescent; electroluminescent conjugated polymers containing phosphorescent transition metal complex moieties for in LED)

IT 98-98-6DP, Picolinic acid, transition metal complexes, conjugated polymer derivs. 289-95-2DP, Pyrimidine, transition metal complexes, conjugated polymer derivs. 541-50-4DP, Acetylacetic acid, transition metal complexes, conjugated polymer derivs. 603-34-9DP, Triphenylamine, transition metal complexes, conjugated polymer derivs. 7440-04-2DP, Osmium, conjugated polymer complexes 7440-06-4DP, Platinum, conjugated polymer complexes 7440-17-7DP, Rubidium, conjugated polymer complexes 11120-54-0DP, Oxadiazole, transition metal complexes, conjugated polymer derivs. 37306-44-8DP, Triazole, transition metal complexes, conjugated polymer derivs. 391604-55-0DP, transition metal complexes, conjugated polymer derivs. 811862-28-9P 811862-29-0P **811862-30-3P**

(electroluminescent conjugated polymers containing phosphorescent transition metal complex moieties for in LED)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:513564 HCAPLUS

DOCUMENT NUMBER: 141:76739

TITLE: Hypercoiling polymers and their use in cellular delivery

INVENTOR(S): Slater, Nigel Kenneth Harry; Eccleston, Mark Edward

PATENT ASSIGNEE(S): Cambridge University Technical Services Limited, UK

SOURCE: PCT Int. Appl., 162 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052402	A1	20040624	WO 2003-GB5262	20031202

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003290222	A1	20040630	AU 2003-290222	20031202
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EP 1567194	A1	20050831	EP 2003-782586	20031202
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

US 2006172418	A1	20060803	US 2005-537543	20050603
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PRIORITY APPLN. INFO.:

GB 2002-28525	A	20021206
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WO 2003-GB5262	W	20031202
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ED Entered STN: 25 Jun 2004

AB This invention pertains to certain hypercoiling polymers, and their use for the delivery of a payload into a living cell, e.g., into the nucleus of a living cell, which polymer incorporates, or is otherwise associated with, said payload. The payload may be, for example, a therapeutic payload, such as a drug; a diagnostic payload, e.g., a detectable label, such as a fluorophore, etc. In preferred embodiments, the hypercoiling polymers are biocompatible, biodegradable, comprise amide linkages, and/or are pseudo-proteins. The present invention also pertains to certain hypercoiling polymers; certain hypercoiling carrier polymers, which incorporate a payload; and certain hypercoiling carrier polymers, otherwise associated with a payload; which are suitable for use in such methods; and methods of diagnosis, treatment, imaging, etc., using such polymers. For example, doxorubicin (as a payload) covalently bonded to poly(L-lysine iso-phthalamide) (as carrier polymer) exhibited significant cytotoxic effects in human breast cancer (MCF7) and mitoxantrone-resistant (MCF7/MXR) cell lines in vitro.

IT 666706-59-8P

(hypercoiling polymers as carriers for cellular delivery)

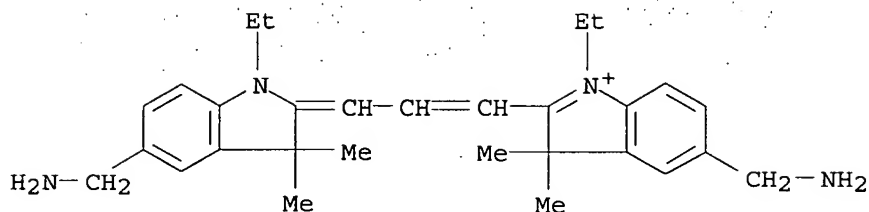
RN 666706-59-8 HCAPLUS

CN L-Lysine, polymer with 5-(aminomethyl)-2-[3-[5-(aminomethyl)-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-3H-indolium and 1,3-benzenedicarbonyl dichloride (9CI). (CA INDEX NAME)

CM 1

CRN 666706-58-7

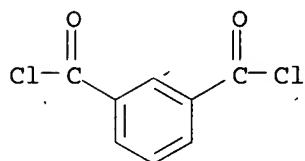
CMF C29 H39 N4



CM 2

CRN 99-63-8

CMF C8 H4 Cl2 O2

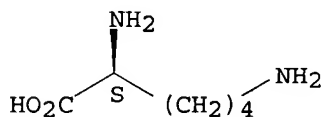


CM 3

CRN 56-87-1

CMF C6 H14 N2 O2

Absolute stereochemistry.



IC ICM A61K047-34

ICS A61K047-42; A61K048-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 35

IT Animal cell

Cell nucleus

Chemotherapy

Chromophores

Cyanine dyes

Cytotoxicity

Diagnostic agents

Drugs

Fluorescent substances

Human

Molecular weight

Phosphors

Plasmid vectors

Radiopharmaceuticals

(hypercoiling polymers as carriers for cellular delivery)

IT 254965-05-4P 666706-59-8P 709653-51-0P 709653-52-1P

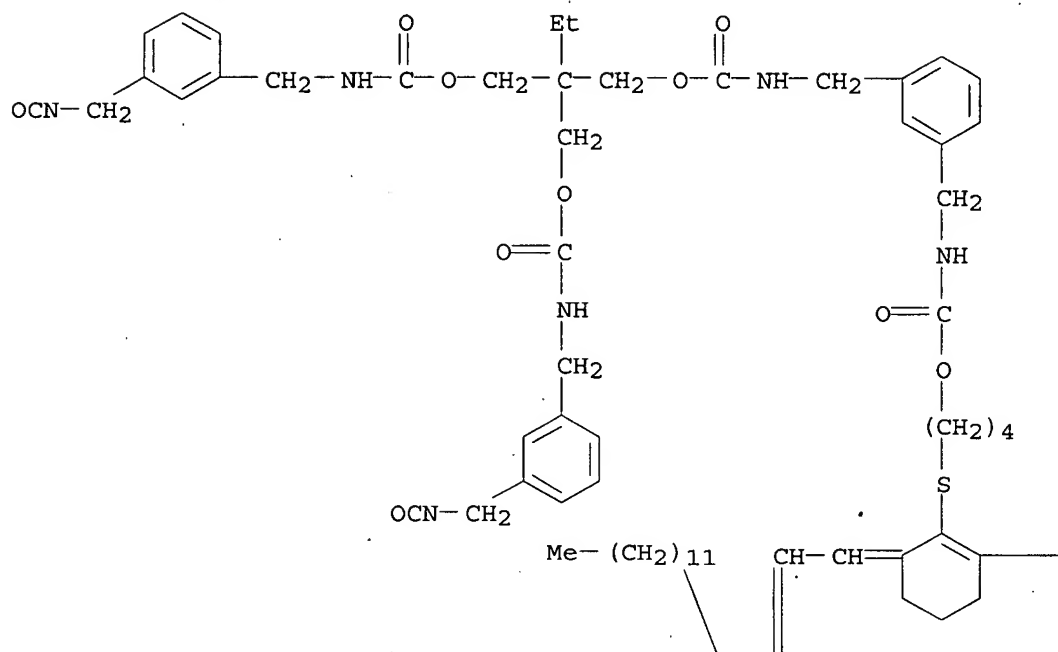
(hypercoiling polymers as carriers for cellular delivery)

L43 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:249431 HCAPLUS
 DOCUMENT NUMBER: 140:294809
 TITLE: Storage-stable and high-sensitivity presensitized lithographic plates, manufacture of printing plates with good printing resistance by lasers, and printing method using them
 INVENTOR(S): Makino, Naonori
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

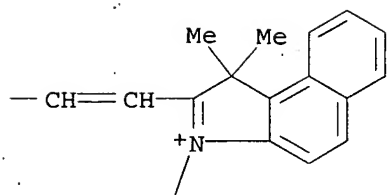
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004090437	A	20040325	JP 2002-255219	20020830
JP 3896396	B2	20070322		
PRIORITY APPLN. INFO.:			JP 2002-255219	20020830

ED Entered STN: 26 Mar 2004
 AB The presensitized plate, suitable for computer-to-plate (CTP) systems and on-machine development, has an imaging layer containing microcapsules, which comprise polymer shells and cores of polymerizable compds., wherein photothermal converting agents are dispersed in the polymer shells.
 IT 675589-19-2P 675589-24-9P 675589-29-4P
 675589-30-7P 675589-31-8P 675589-32-9P
 (microcapsule shell; storage-stable and high-sensitivity presensitized lithog. plates for CTP by lasers)
 RN 675589-19-2 HCAPLUS
 CN 1H-Benz[e]indolium, 3-dodecyl-2-[2-[3-[(3-dodecyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-[[4-[[[[[3-[6-ethyl-11-[3-(isocyanatomethyl)phenyl]-6-[[[[[3-(isocyanatomethyl)phenyl]methyl]amino]carbonyl]oxy]methyl]-3,9-dioxo-4,8-dioxo-2,10-diazaundec-1-yl]phenyl]methyl]amino]carbonyl]oxy]butyl]thio]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-, salt with 4-methylbenzenesulfonic acid (1:1), homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 675589-17-0
 CMF C102 H131 N8 O10 S

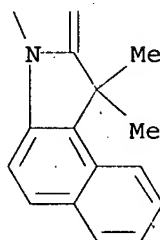
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PAGE 1-B

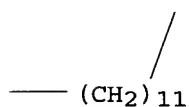


PAGE 2-A



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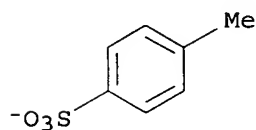
PAGE 2-B



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



RN 675589-24-9 HCAPLUS

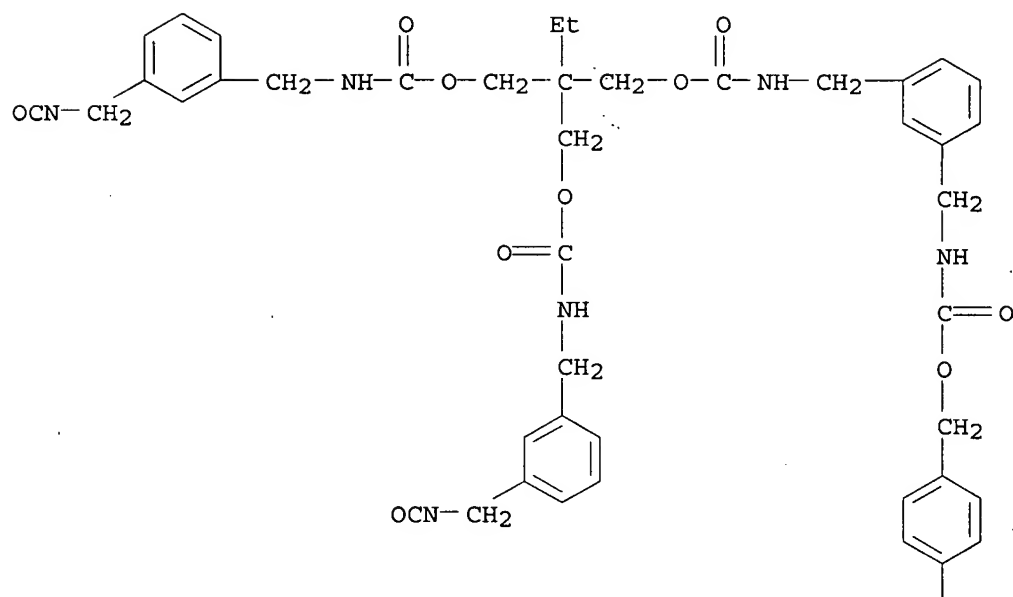
CN 1H-Benz[e]indolium, 3-dodecyl-2-[2-[3-[(3-dodecyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-[4-[[[[[[3-[6-ethyl-11-[3-(isocyanatomethyl)phenyl]-6-[[[[[[3-(isocyanatomethyl)phenyl]methyl]amino]carbonyl]oxy]methyl]-3,9-dioxo-4,8-dioxo-2,10-diazaundec-1-yl]phenyl]methyl]amino]carbonyl]oxy]methyl]phenyl]thio]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-, salt with 4-methylbenzenesulfonic acid (1:1), homopolymer (9CI) (CA INDEX NAME)

CM 1

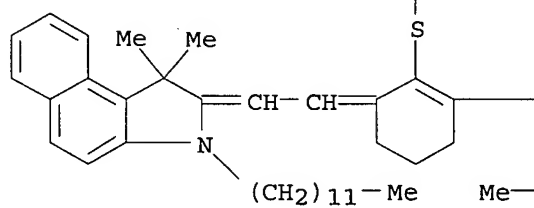
CRN 675589-22-7

CMF C105 H129 N8 O10 S

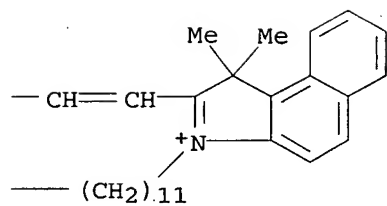
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PAGE 2-A



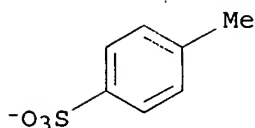
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CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



RN 675589-29-4 HCAPLUS

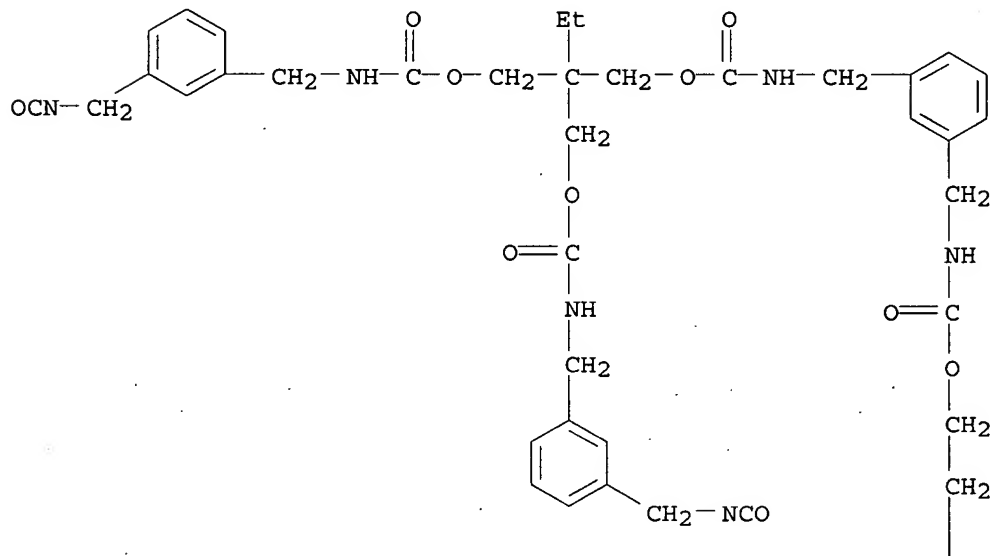
CN 1H-Benz[e]indolium, 3-dodecyl-2-[2-[3-[(3-dodecyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-[[2-[[[[[3-[6-ethyl-11-[3-(isocyanatomethyl)phenyl]-6-[[[[[3-(isocyanatomethyl)phenyl]methyl]amino]carbonyl]oxy]methyl]-3,9-dioxo-4,8-dioxo-2,10-diazaundec-1-yl]phenyl]methyl]amino]carbonyl]oxy]ethyl]phenylamino]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-, salt with 4-methylbenzenesulfonic acid (1:1), homopolymer (9CI) (CA INDEX NAME)

CM 1

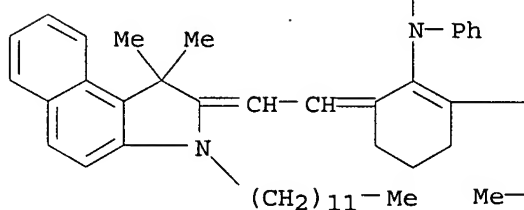
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CMF C106 H132 N9 O10

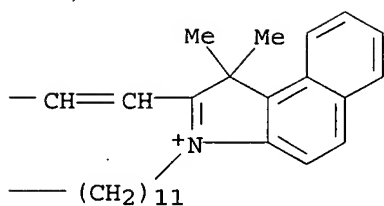
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PAGE 2-A



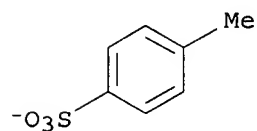
PAGE 2-B



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



RN 675589-30-7 HCAPLUS

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CM 1

CRN 9016-87-9

CMF Unspecified

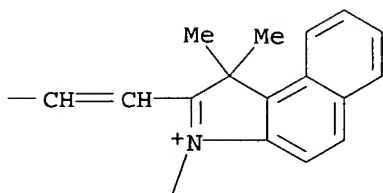
CCI PMS, MAN

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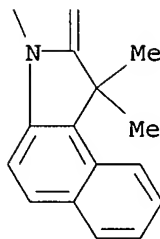
CM 2

CMF C102 H131 N8 O10 S

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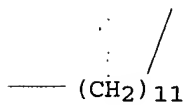


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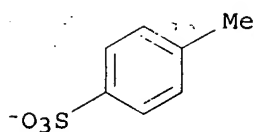
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PAGE 2-B



CM 4

CRN 16722-51-3
CMF C7 H7 O3 S



RN 675589-31-8 HCAPLUS
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CM 1

CRN 9016-87-9
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 675589-23-8
 CMF C105 H129 N8 O10 S . C7 H7 O3 S

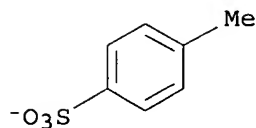
CM 3

CRN 675589-22-7
 CMF C105 H129 N8 O10 S .

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CRN 16722-51-3

CMF C7 H7 O3 S



RN 675589-32-9 HCAPLUS
CN 1H-Benz[e]indolium, 3-dodecyl-2-[2-[3-[(3-dodecyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-[[2-[[[[[3-[6-ethyl-11-[3-(isocyanatomethyl)phenyl]-6-[[[[[3-(isocyanatomethyl)phenyl]methyl]amino]carbonyl]oxy]methyl]-3,9-dioxo-4,8-dioxo-2,10-diazaundec-1-yl]phenyl]methyl]amino]carbonyl]oxy]ethyl]phenylamino]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-, salt with 4-methylbenzenesulfonic acid (1:1), polymer with polymethylenepolyphenylene isocyanate (9CI) (CA INDEX NAME)

CM 1

CRN 9016-87-9
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

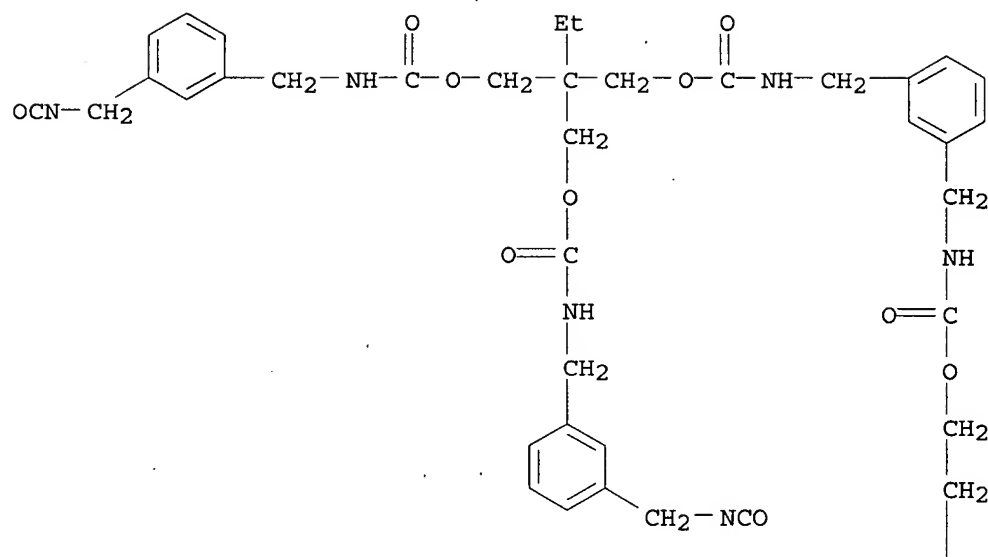
CM 2

CRN 675589-28-3
CMF C106 H132 N9 O10 . C7 H7 O3 S

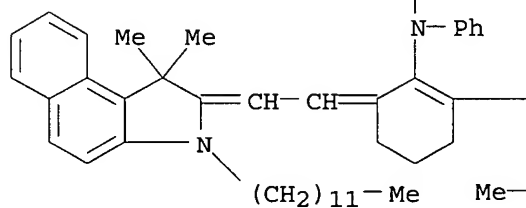
CM 3

CRN 675589-27-2
CMF C106 H132 N9 O10

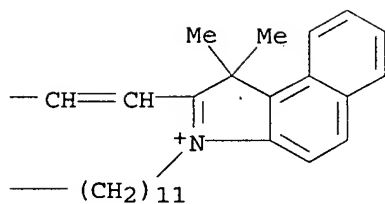
PAGE 1-A



PAGE 2-A



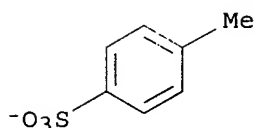
PAGE 2-B



CM 4

CRN 16722-51-3

CMF C7 H7 O3 S



IC ICM B41N001-14
ICS B41C001-055; G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Lithographic plates**
(presensitized; storage-stable and high-sensitivity presensitized lithog. plates for CTP by lasers)

IT **Lithographic plates**
Lithography
Photoimaging materials
(storage-stable and high-sensitivity presensitized lithog. plates for CTP by lasers)

IT 675589-19-2P 675589-24-9P 675589-29-4P
675589-30-7P 675589-31-8P 675589-32-9P
(microcapsule shell; storage-stable and high-sensitivity presensitized lithog. plates for CTP by lasers)

L43 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:818436 HCAPLUS

DOCUMENT NUMBER: 139:323663

TITLE: Preparation of metal complexes containing carbazole derivatives for organic electroluminescent materials

INVENTOR(S): Kobayashi, Satoshi; Doi, Shuji; Mikami, Satoshi

PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan

SOURCE: PCT Int. Appl., 96 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

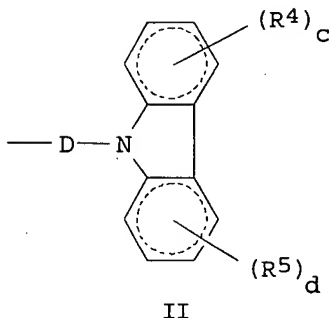
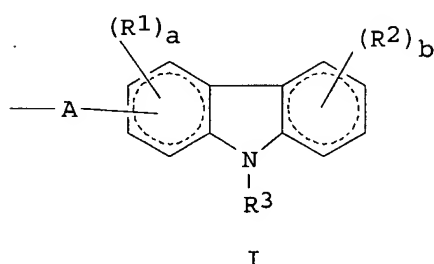
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003084973	A1	20031016	WO 2003-JP3494	20030324
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AU 2003220974	A1	20031020	AU 2003-220974	20030324
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GB 2404380	A	20050202	GB 2004-23314	20030324

GB 2404380	B	20060823		
US 2005147843	A1	20050707	US 2003-508861	20030324
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JP 2004002344	A	20040108	JP 2003-84772	20030326
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JP 2004002755	A	20040108	JP 2003-84773	20030326
			<--	
PRIORITY APPLN. INFO.:			JP 2002-86173	A 20020326
			<--	
			JP 2002-86174	A 20020326
			<--	
			WO 2003-JP3494	W 20030324
			<--	

OTHER SOURCE(S): MARPAT 139:323663

ED Entered STN: 17 Oct 2003

GI



AB This patent relates to the preparation of metal complexes having a metal complex structure permitting luminescence from the triplet excited state and a monovalent group represented by the general formula (I) [wherein A is arylene or the like; R1 and R2 are each independently halogeno or the like; R3 is alkyl or the like; a is an integer of 0 to 3; and b is an integer of 0 to 4] or (II) [wherein D is arylene or the like; R4 and R5 are each independently halogen or the like; and c and d are each an integer of 0 to 4]; and luminescent devices made by using the same. The metal complexes are superior to luminescent materials of the prior art in luminous efficiency and can form luminescent layers by coating. Thus, an iridium complex polymer prepared from a composition comprising 9,9-dioctyl-2,7-dibromofluorene, bis(2-phenylpyridine) [2-(bromophenyl)pyridine]iridium(III), tris[2-(bromophenyl)pyridine]iridium(III), [2-(phenyl)pyridine]bis[2-(bromophenyl)pyridine]iridium(III), tris(2-phenylpyridine)iridium(III) (all three ligands in the Ir complexes are orthometalated), and a monomer made from the reaction of N-ethyl-3-carbazolecarboxaldehyde and a reaction product of 1,4-dibromo-2,5-bis(bromomethyl)benzene with tri-Et phosphite was dissolved in chloroform (0.2 weight%) and spin-coated to form a thin film which showed illumination intensity 1.97 at 450 nm, 1.78 at 476 nm, and 1.67 at 523 nm.

IT 612823-45-7P

(preparation of polymeric metal complexes having carbazole derivative for organic electroluminescent materials)

RN 612823-45-7 HCAPLUS

CN Iridium, bis[bromo-2-(2-pyridinyl-κN)phenyl-κC] [2-(2-pyridinyl-κN)phenyl-κC]-, polymer with

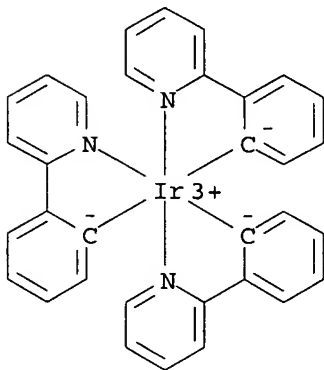
2,7-dibromo-9,9-dioctyl-9H-fluorene, 3,3'-[(2,5-dibromo-1,4-phenylene)di-2,1-ethenediyl]bis[9-ethyl-9H-carbazole] and tris[bromo-2-(2-pyridinyl-κN)phenyl-κC]iridium (9CI) (CA INDEX NAME)

CM 1

CRN 612823-44-6

CMF C33 H22 Br2 Ir N3

CCI CCS, IDS

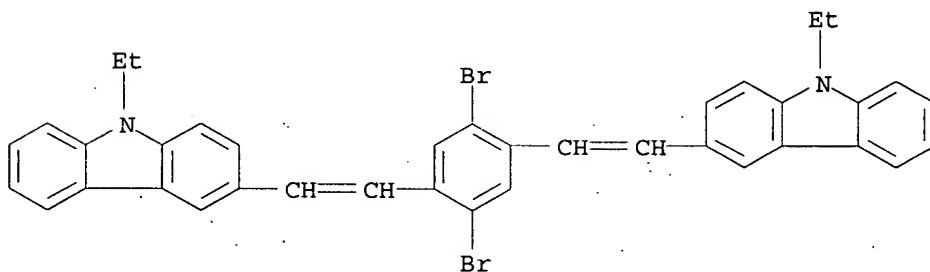


2 (D1-Br)

CM 2

CRN 494775-71-2

CMF C38 H30 Br2 N2

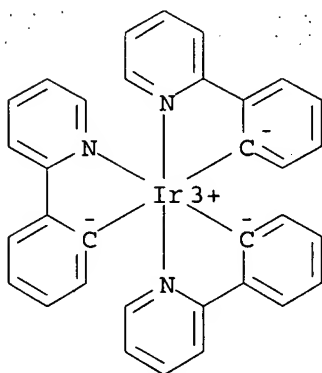


CM 3

CRN 364732-77-4

CMF C33 H21 Br3 Ir N3

CCI CCS, IDS

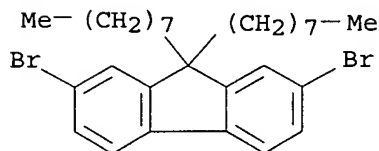


3 (D1-Br)

CM 4

CRN 198964-46-4

CMF C29 H40 Br2



IC ICM C07F015-00

ICS C08G061-12; C09K011-06; H05B033-14

CC 29-13 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 27, 35, 73

IT **Luminescent substances**

(electroluminescent; preparation of polymeric metal complexes having carbazole derivative for organic electroluminescent materials)

IT **612823-45-7P**

(preparation of polymeric metal complexes having carbazole derivative for organic electroluminescent materials)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:101049 HCAPLUS

DOCUMENT NUMBER: 134:164557

TITLE: Thermal waterless lithographic printing plates for near IR laser imaging

INVENTOR(S): Nguyen, My T.

PATENT ASSIGNEE(S): American Dye Source Inc., Can.

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001008885	A1	20010208	WO 2000-CA797	20000704

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2279299	A1	20010129	CA 1999-2279299	19990729
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EP 1214197	A1	20020619	EP 2000-945482	20000704
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EP 1214197	B1	20040609		
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

AT 268692	T	20040615	AT 2000-945482	20000704
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ES 2222911	T3	20050216	ES 2000-945482	20000704
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PRIORITY APPLN. INFO.:

CA 1999-2279299	A	19990729
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WO 2000-CA797	W	20000704
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ED Entered STN: 09 Feb 2001

AB Thermal waterless lithog. printing plates that can be imaged with near IR laser light without post chemical processing step, useful for computer-to-plate and digital-offset-press technologies, comprises (i) a support substrate, and (ii) a composite top layer consisting of: (a) a near IR absorbing adhesion promoting layer applied to the support substrate, such as an benz[e]indolium perchlorate based polyurethane and (b) a near IR absorbing ink repelling cross-linked silicone polymer layer, a benz[e]indolium methylbenzenesulfonic acid based polysiloxane.

IT 324780-63-4P 324780-64-5P 324780-67-8P
324780-68-9P 324780-69-0P

(thermal waterless lithog. printing plates for near IR laser imaging)

RN 324780-63-4 HCAPLUS

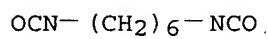
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CM 1

CRN 28679-16-5

CMF C11 H18 N2 O2

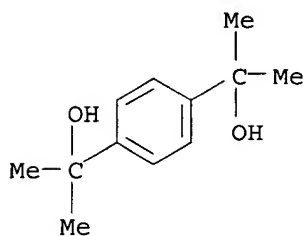
CCI IDS



3 (D1-Me)

CM 2

CRN 2948-46-1
CMF C12 H18 O2

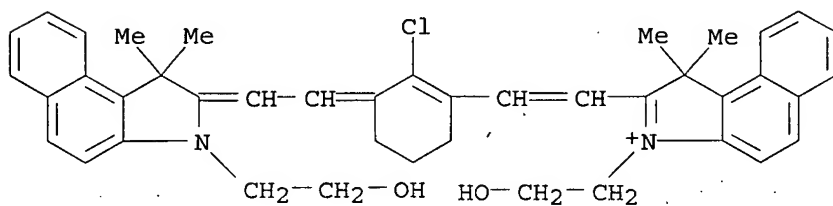


CM 3

CRN 324780-62-3
CMF C42 H44 Cl N2 O2 . Cl O4

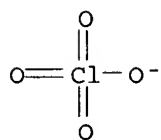
CM 4

CRN 263762-21-6
CMF C42 H44 Cl N2 O2



CM 5

CRN 14797-73-0
CMF Cl O4



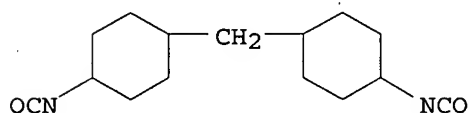
RN 324780-64-5 HCAPLUS

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CRN 5124-30-1

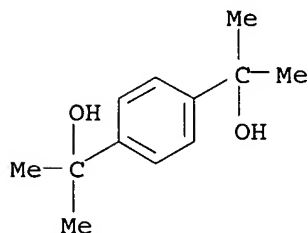
CMF C15 H22 N2 O2



CM 2

CRN 2948-46-1

CMF C12 H18 O2



CM 3

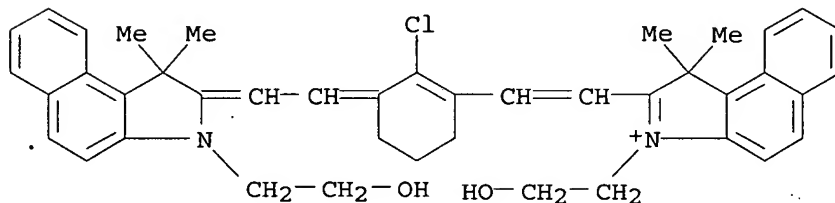
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CMF C42 H44 Cl N2 O2 . Cl O4

CM 4

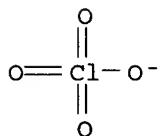
CRN 263762-21-6

CMF C42 H44 Cl N2 O2



CM 5

CRN 14797-73-0
CMF C1 O4



RN 324780-67-8 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-2-(2-propenyloxy)-1-cyclohexen-1-yl]ethenyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, perchlorate, polymer with 1,6-diisocyanatotrimethylhexane and $\alpha, \alpha, \alpha', \alpha'$ -tetramethyl-1,4-benzenedimethanol (9CI) (CA INDEX NAME)

CM 1

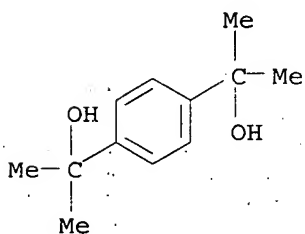
CRN 28679-16-5
CMF C11 H18 N2 O2
CCI IDS

OCN⁻ (CH₂)₆-NCO

3 (D1-Me)

CM 2

CRN 2948-46-1
CMF C12 H18 O2



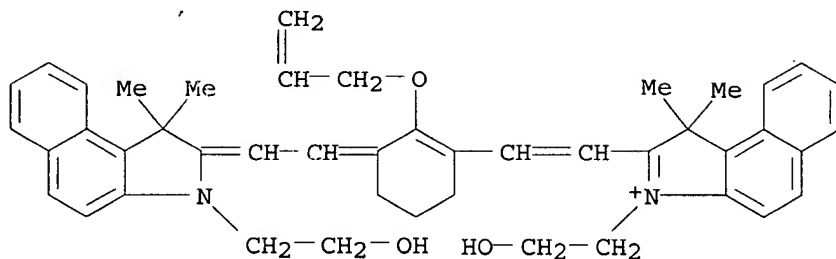
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CRN 324780-66-7
CMF C45 H49 N2 O3 . C1 O4

CM 4

CRN 324780-65-6

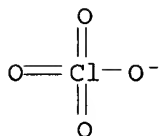
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CM 5

CRN 14797-73-0

CMF Cl O4



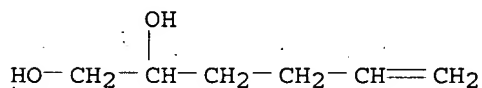
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CRN 36842-44-1

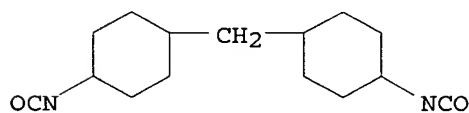
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CM 2

CRN 5124-30-1

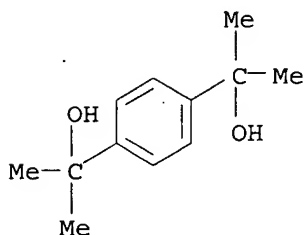
CMF C15 H22 N2 O2



CM 3

CRN 2948-46-1

CMF C12 H18 O2



CM 4

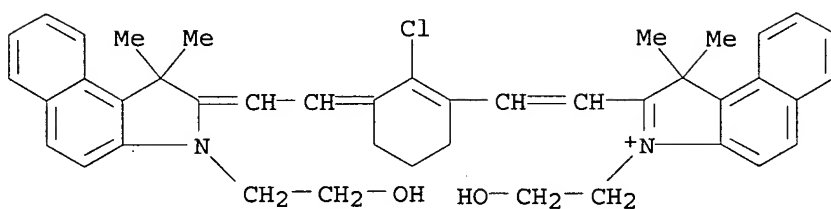
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CMF C42 H44 Cl N2 O2 . Cl O4

CM 5

CRN 263762-21-6

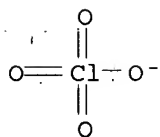
CMF C42 H44 Cl N2 O2



CM 6

CRN 14797-73-0

CMF Cl O4



RN 324780-69-0 HCAPLUS

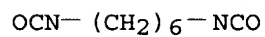
CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, perchlorate, polymer with 1,6-diisocyanatotrimethylhexane, 2-hydroxy-5-methyl-1,3-benzenedimethanol and $\alpha,\alpha,\alpha',\alpha'$ -tetramethyl-1,4-benzenedimethanol (9CI) (CA INDEX NAME)

CM 1

CRN 28679-16-5

CMF C11 H18 N2 O2

CCI IDS

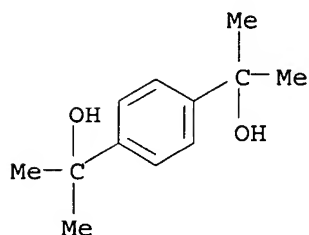


3 (D1-Me)

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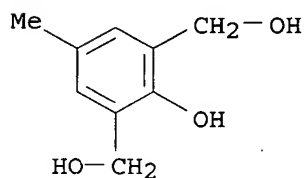
CMF C12 H18 O2



CM 3

CRN 91-04-3

CMF C9 H12 O3



CM 4

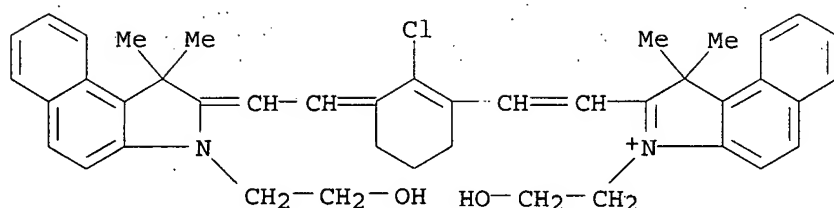
CRN 324780-62-3

CMF C42 H44 Cl N2 O2 . Cl O4

CM 5

CRN 263762-21-6

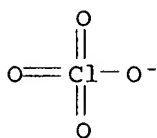
CMF C42 H44 Cl N2 O2



CM 6

CRN 14797-73-0

CMF Cl O4



IC ICM B41C001-10

ICS B41N001-00

CC 42-10 (Coatings, Inks, and Related Products)

IT **Lithographic plates**

(waterless; thermal waterless lithog. printing plates for near IR laser imaging)

IT 59942-04-0DP, PS 445, reaction products with benz[e]indolium

324780-63-4P 324780-64-5P 324780-67-8P

324780-68-9P 324780-69-0P 324780-70-3DP, reaction

products with polysiloxane 324780-72-5DP, reaction products with

polysiloxane 324780-75-8DP, reaction products with polysiloxane

324780-78-1DP, reaction products with polysiloxane 324780-80-5DP,

reaction products with polysiloxane 324780-82-7DP, reaction products

with polysiloxane 324780-84-9DP, reaction products with polysiloxane

(thermal waterless lithog. printing plates for near IR laser imaging)

REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:680396 HCAPLUS

DOCUMENT NUMBER: 133:274344

TITLE: Thermally reactive near infrared absorption polymer coatings, method of preparing and methods of use

INVENTOR(S): Nguyen, My T.

PATENT ASSIGNEE(S): American Dye Source, Inc., Can.

SOURCE: U.S., 16 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

US 6124425	A	20000926	US 1999-275032	19990318
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CA 2266263	A1	20000922	CA 2000-2266263	19990322
			<--	
WO 2000056791	A1	20000928	WO 2000-CA296	20000317
			<--	

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,
 CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
 HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
 RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
 US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,
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EP 1161469	A1	20011212	EP 2000-910470	20000317
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EP 1161469	B1	20040811		
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
 PT, IE, SI, LT, LV, FI, RO

AT 273331	T	20040815	AT 2000-910470	20000317
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US 6177182	B1	20010123	US 2000-561817	20000501
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PRIORITY APPLN. INFO.:

US 1999-275032	A	19990318
		<--
WO 2000-CA296	W	20000317
		<--

ED Entered STN: 28 Sep 2000

AB Provided here are novel polymeric coating materials for direct digital imaging by laser. More specifically the novel coating materials are thermally reactive near IR absorption polymers designed for use with near IR laser imaging devices. This invention further extends to the preparation and methods of use of the novel materials. The invention is particularly useful in the preparation of lithog. printing plates for computer-to-plate and digital-offset-press technologies. The invention extends to photoresist applications, to rapid prototyping of printed circuit boards and to chemical sensor development.

IT 297174-00-6P 297174-03-9P 297174-06-2P
 297174-07-3P 297174-09-5P 297174-11-9P
 297174-13-1P 297174-15-3P 297174-17-5P
 297174-18-6P 297174-20-0P

(synthesis of near-IR absorption polymer thermal coatings for direct digital imaging by laser)

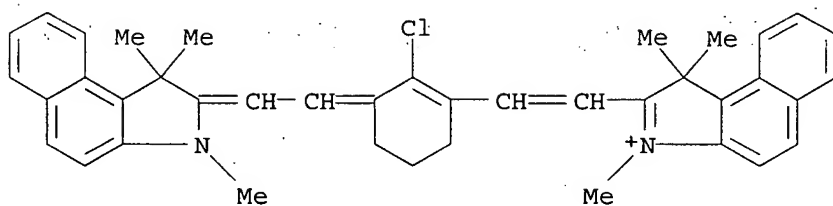
RN 297174-00-6 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297173-98-9

CMF C40 H40 Cl N2 . Cl



CM 2

CRN 297173-99-0

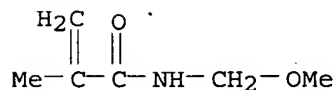
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CCI PMS

CM 3

CRN 3644-12-0

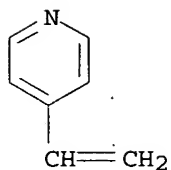
CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N



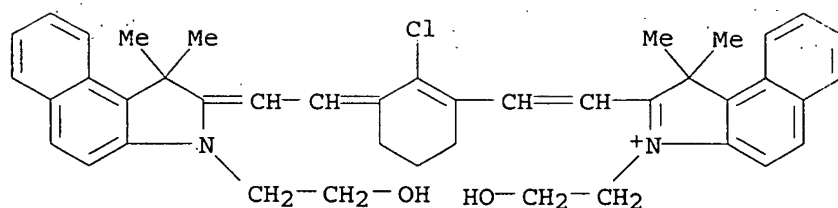
RN 297174-03-9 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, chloride; compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-02-8

CMF C42 H44 Cl N2 O2 . Cl



● Cl⁻

CM 2

CRN 297173-99-0

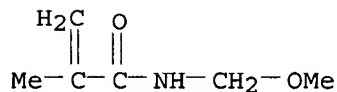
CMF (C7 H7 N . C6 H11 N O2)x

CCI PMS

CM 3

CRN 3644-12-0

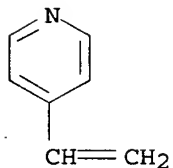
CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N



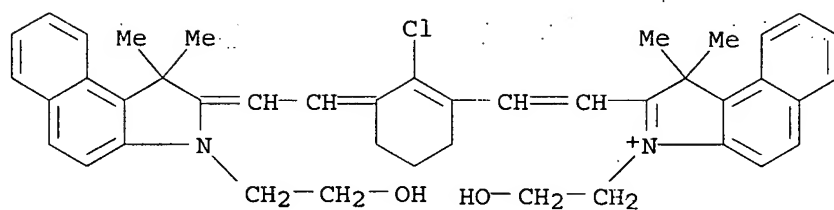
RN 297174-06-2 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, chloride, compd. with butyl 2-methyl-2-propenoate polymer with 4-ethenylpyridine and N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-02-8

CMF C42 H44 Cl N2 O2 . Cl



CM 2

CRN 297174-05-1

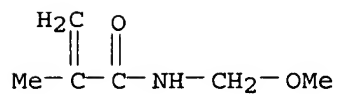
CMF (C8 H14 O2 . C7 H7 N . C6 H11 N O2)x

CCI PMS

CM 3

CRN 3644-12-0

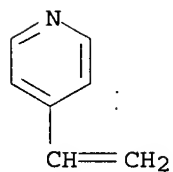
CMF C6 H11 N O2



CM 4

CRN 100-43-6

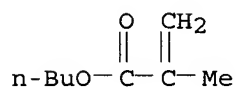
CMF C7 H7 N



CM 5

CRN 97-88-1

CMF C8 H14 O2

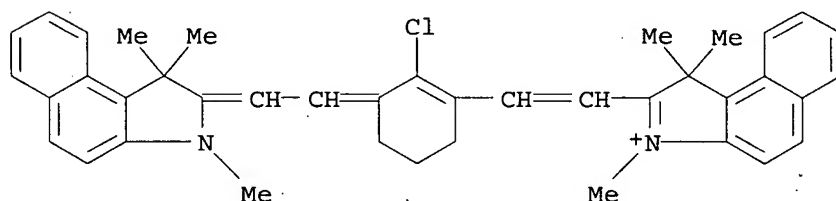


RN 297174-07-3 HCAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, chloride, compd. with 2-chloroethanol and 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297173-98-9

CMF C40 H40 Cl N2 . Cl

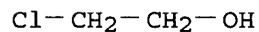


● Cl⁻

CM 2

CRN 107-07-3

CMF C2 H5 Cl O



CM 3

CRN 297173-99-0

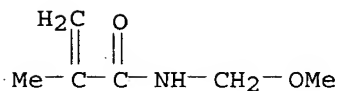
CMF (C7 H7 N . C6 H11 N O2)x

CCI PMS

CM 4

CRN 3644-12-0

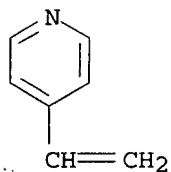
CMF C6 H11 N O2



CM 5

CRN 100-43-6

CMF C7 H7 N



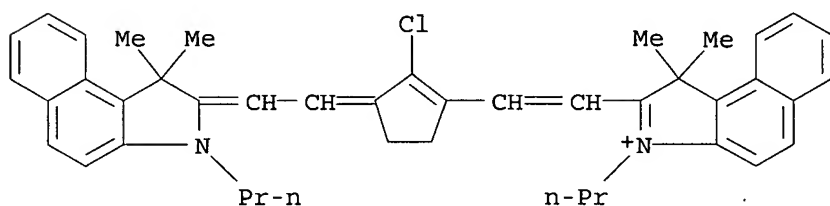
RN 297174-09-5 HCAPLUS

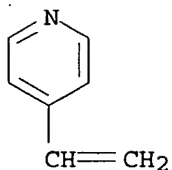
CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1-dimethyl-3-propyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-propyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-08-4

CMF C43 H46 Cl N2 . Cl





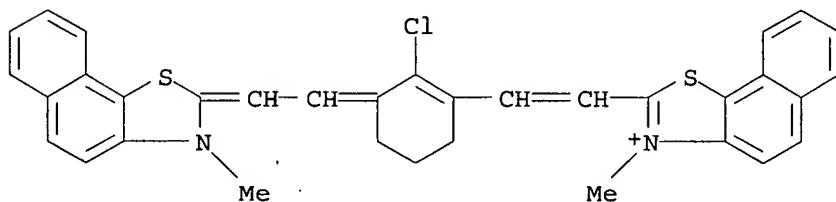
RN 297174-11-9 HCAPLUS

CN Naphtho[2,1-d]thiazolium, 2-[2-[2-chloro-3-[(3-methylnaphtho[2,1-d]thiazol-2(3H)-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-methyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-10-8

CMF C34 H28 Cl N2 S2 . Cl



● Cl⁻

CM 2

CRN 297173-99-0

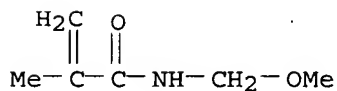
CMF (C7 H7 N . C6 H11 N O2)x

CCI PMS

CM 3

CRN 3644-12-0

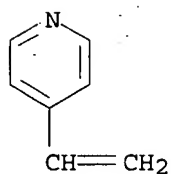
CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N



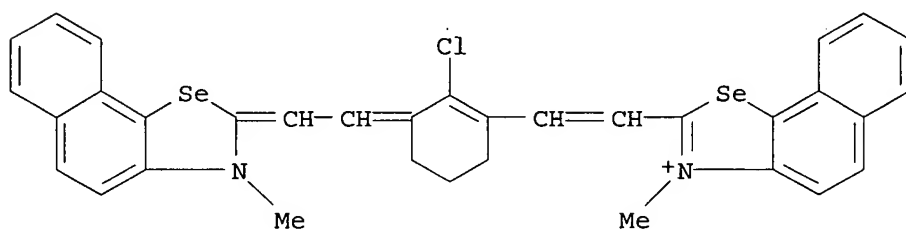
RN 297174-13-1 HCAPLUS

CN Naphtho[2,1-d]selenazolium, 2-[2-[2-chloro-3-[(3-methylnaphtho[2,1-d]selenazol-2(3H)-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-methyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-12-0

CMF C34 H28 Cl N2 Se2 . Cl



● Cl⁻

CM 2

CRN 297173-99-0

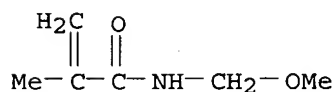
CMF (C7 H7 N . C6 H11 N O2)x

CCI PMS

CM 3

CRN 3644-12-0

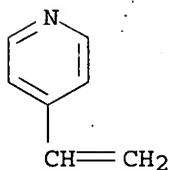
CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N

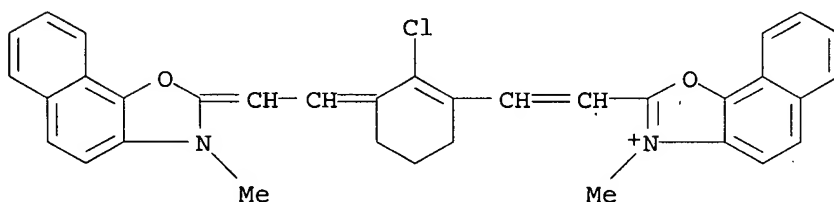


RN 297174-15-3 HCAPLUS
 CN Naphth[2,1-d]oxazolium, 2-[2-[2-chloro-3-[(3-methylnaphth[2,1-d]oxazol-2(3H)-ylidene)ethyldene]-1-cyclohexen-1-yl]ethenyl]-3-methyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-14-2

CMF C34 H28 Cl N2 O2 . Cl



● Cl⁻

CM 2

CRN 297173-99-0

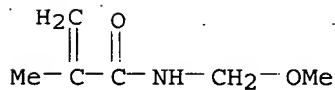
CMF (C7 H7 N . C6 H11 N O2)x

CCI PMS

CM 3

CRN 3644-12-0

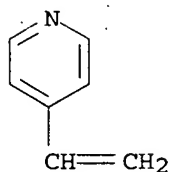
CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N



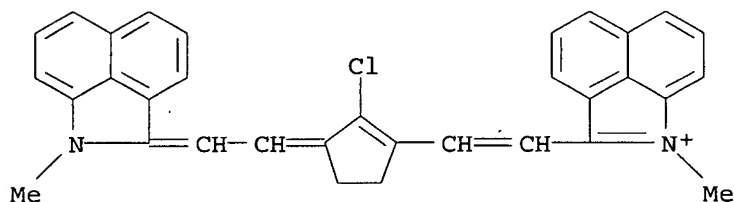
RN 297174-17-5 HCAPLUS

CN Benz[cd]indolium, 2-[2-[2-chloro-3-[(1-methylbenz[cd]indol-2(1H)-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1-methyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-16-4

CMF C33 H26 Cl N2 . Cl



● Cl⁻

CM 2

CRN 297173-99-0

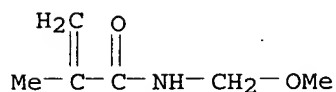
CMF (C7 H7 N . C6 H11 N O2)x

CCI PMS

CM 3

CRN 3644-12-0

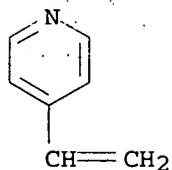
CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N



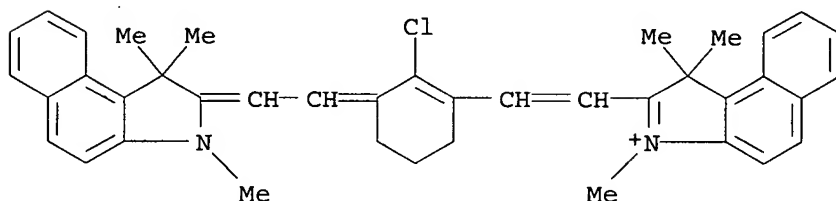
RN 297174-18-6 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, chloride, compd. with 2-chloroethanol and 4-ethenylpyridine polymer with 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 297173-98-9

CMF C40 H40 Cl N2 . Cl

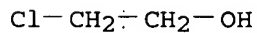


● Cl⁻

CM 2

CRN 107-07-3

CMF C2 H5 Cl O



CM 3

CRN 36180-84-4

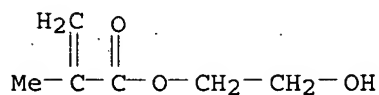
CMF (C7 H7 N . C6 H10 O3)x

CCI PMS

CM 4

CRN 868-77-9

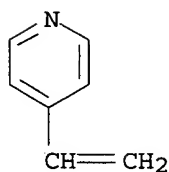
CMF C6 H10 O3



CM 5

CRN 100-43-6

CMF C7 H7 N



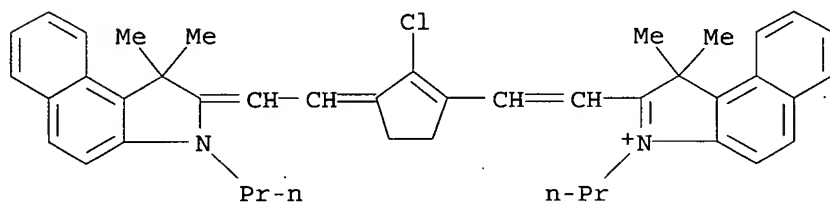
RN 297174-20-0 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1-dimethyl-3-propyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-propyl-, chloride, compd. with butyl 2-methyl-2-propenoate polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate and N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-08-4

CMF C43 H46 Cl N2 . Cl

● Cl⁻

CM 2

CRN 297174-19-7

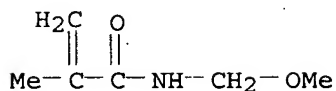
CMF (C8 H15 N O2 . C8 H14 O2 . C6 H11 N O2)x

CCI PMS

CM 3

CRN 3644-12-0

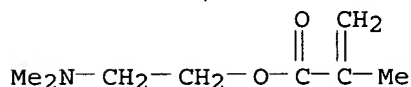
CMF C6 H11 N O2



CM 4

CRN 2867-47-2

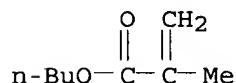
CMF C8 H15 N O2



CM 5

CRN 97-88-1

CMF C8 H14 O2



IC ICM C08G073-00

INCL 528422000

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Coating materials

Imaging

Lithographic plates

Photoresists

Printed circuit boards

Sensors

(preparation of chemical sensor for measuring electrode conductivity in direct

digital laser imaging)

IT 9016-83-5DP, SD 140A, ethers with cyanine dyes 110123-09-6DP, ethers with cyanine dyes 134127-48-3DP, ethers with hydroxy-containing polymers 247248-90-4DP, ethers with hydroxy-containing polymers

297174-00-6P 297174-03-9P 297174-06-2P

297174-07-3P 297174-09-5P 297174-11-9P

297174-13-1P 297174-15-3P 297174-17-5P

297174-18-6P 297174-20-0P 297752-34-2DP, ethers with cyanine dyes

(synthesis of near-IR absorption polymer thermal coatings for direct digital imaging by laser)

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

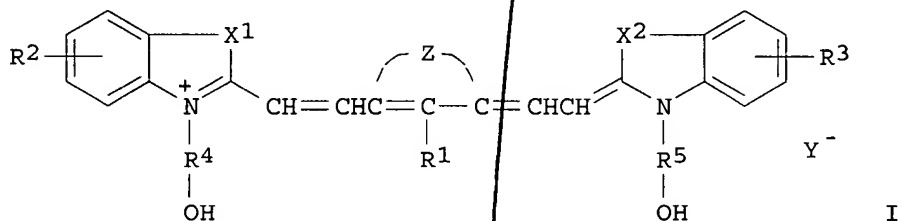
L43 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:181205 HCAPLUS

DOCUMENT NUMBER: 132:214790
 TITLE: Positive-working photoresist composition for near IR-sensitive direct-imaging lithographic plate making
 INVENTOR(S): Hisamatsu, Naoki; Takada, Masakazu; Miura, Taketoshi
 PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000081703	A	20000321	JP 1998-250188	19980904
PRIORITY APPLN. INFO.:			JP 1998-250188	19980904

OTHER SOURCE(S): MARPAT 132:214790
 ED Entered STN: 21 Mar 2000
 GI



AB The pos.-working photoresist composition for near IR-sensitive direct-imaging lithog. plate making has a recording layer made from a three-component copolymer of a polyisocyanate, a phenol resin, and near IR-absorbing compound I (R1 = H, halo, diphenylamine; R2-3 = H, halo, alkoxy, phenyl; R4-5 = divalent connecting group; Z = divalent cyclohexene, cyclopentene residue; Y- = counter anion). The resist composition provides a development process without a heating step and shows the excellent storageability.

IT 260548-95-6P

(copolymer for pos.-working photoresist composition)

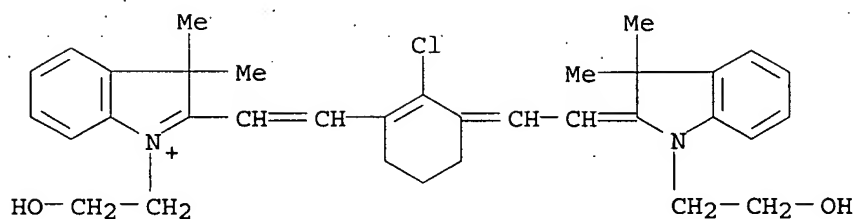
RN 260548-95-6 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-hydroxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-hydroxyethyl)-3,3-dimethyl-, iodide, polymer with 1,6-diisocyanatohexane, formaldehyde and 3-methylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 260548-94-5

CMF C34 H40 Cl N2 O2 . I



● I⁻

CM 2

CRN 822-06-0

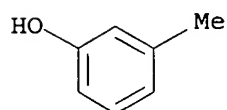
CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CM 3

CRN 108-39-4

CMF C7 H8 O



CM 4

CRN 50-00-0

CMF C H2 O

H₂C=O

IC ICM G03F007-039

ICS B41N001-14; G03F007-00; G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Lithographic plates**

Positive photoresists

(pos.-working photoresist composition for near IR-sensitive direct-imaging lithog. plate making)

IT 260548-95-6P

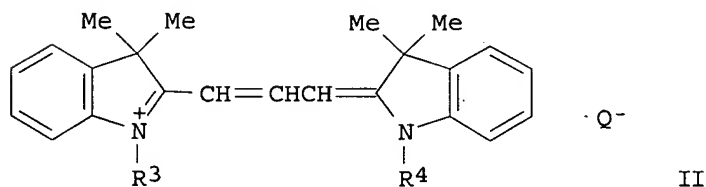
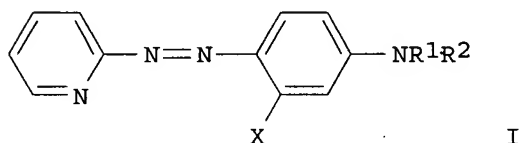
(copolymer for pos.-working photoresist composition)

L43 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:508973 HCAPLUS
 DOCUMENT NUMBER: 127:227475
 TITLE: Optical recording material and recording method
 INVENTOR(S): Maeda, Shuichi
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan;
 Mitsubishi Chemical Corp.
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09193545	A	19970729	JP 1996-6479	19960118
JP 3648823	B2	20050518		
PRIORITY APPLN. INFO.: JP 1996-6479				19960118

OTHER SOURCE(S): MARPAT 127:227475
 ED Entered STN: 11 Aug 1997
 GI



AB The material comprises a substrate coated with a recording layer, capable of recording and reading by using lasers, containing a mixture of an azo metal chelate compound of an azo compound I [R1, R2 = H or (substituted) alkyl, aryl, alkenyl or cycloalkyl, R1 and R2 may link to form a hydrocarbon or heterocyclic ring; benzene rings may be substituted; X = OH, CO2H, SO3H or these salt] and metals and an indolenine-type cyanine dye II [R3, R4 = (substituted) alkyl, aryl, alkenyl or cycloalkyl; Q- = anion residue; benzene rings may be substituted]. The title method comprises irradiating the material with a laser beam of wavelength 620-690 nm. The material shows less jitter and shows high sensitivity in high speed recording using relative low wavelength laser beams.

IT 194938-01-7

(optical recording material containing azo metal chelate compound and indolenine-type cyanine dye)

RN 194938-01-7 HCAPLUS

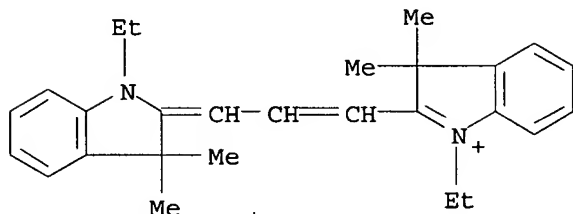
CN 3H-Indolium, 1-ethyl-2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-

ylidene)-1-propenyl]-3,3-dimethyl-, hexafluorophosphate(1-),
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 38912-20-8

CMF C27 H33 N2

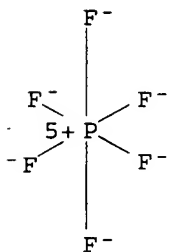


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IC ICM B41M005-26

ICS C09B067-22; G11B007-24

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 41

IT Cyanine dyes

Optical recording materials

(optical recording material containing azo metal chelate compound and
indolenine-type cyanine dye)

IT 14696-39-0 131145-76-1 186818-77-9 186818-78-0 186818-79-1

186818-81-5 194938-01-7 194938-03-9 194938-05-1

195145-24-5 195145-35-8

(optical recording material containing azo metal chelate compound and
indolenine-type cyanine dye)

L43 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:440133 HCAPLUS

DOCUMENT NUMBER: 127:52214

TITLE: New polymeric cyanine dyes and optical recording
elements containing them with reduced bubble
formation

INVENTOR(S): Burns, Elizabeth G.; Fleming, James C.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 774495	A1	19970521	EP 1996-420324	19961105

R: DE, FR, GB
JP 09263056 A 19971007 JP 1996-302803 19961114
US 5932690 A 19990803 US 1997-832590 19970402

PRIORITY APPLN. INFO.: US 1995-557252 A 19951114

ED Entered STN: 16 Jul 1997

AB An optical recording element has, in the following order, a transparent substrate, a recording layer and a light-reflecting layer; the recording layer has a real refractive index at 780 nm ≥ 1.8 and an imaginary part ≤ 0.15 , a thickness > 200 nm, and comprises a polymeric cyanine dye that has a weight-average mol. weight $> 50,000$ and/or a glass-transition temperature (Tg) of $< 150^\circ$. Thus, 1,1,2-trimethylbenz[e]indole was quaternized with BrCH₂CH₂OH and the product condensed with MeOCH:CHCH(OMe)₂ to give a cyanine diol, which was converted from the bromide to the trifluoromethanesulfonate and polymerized with hexamethylene diisocyanate to give a polymeric dye. A 120-mm polycarbonate disk 1.2 mm thick with an embossed tracking groove was spin-coated with a 5% solution of the polymeric dye in HCF₂CF₂CH₂OH to the appropriate thickness, covered with a 130-nm reflective Au layer, and finally spin-coated with a protective polyacrylate (Daicure SD 17) to approx. 5 μ m and cured to give a writable CD-ROM.

IT 186523-84-2P

(polymeric cyanine dyes and optical recording elements containing them)

RN 186523-84-2 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 822-06-0

CMF C8 H12 N2 O2

OCN- (CH₂)₆-NCO

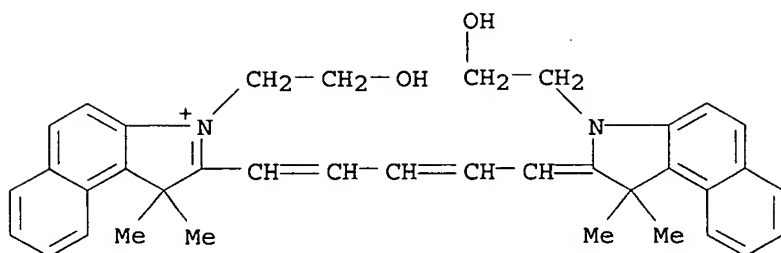
CM 2

CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

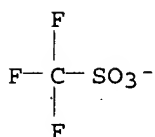
CM 3

CRN 186523-82-0
CMF C37 H39 N2 O2



CM 4

CRN 37181-39-8
CMF C F3 O3 S



IC ICM C09B069-10
ICS G11B007-24
CC 41-6 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)
Section cross-reference(s): 74
IT **Optical recording materials**
(polymeric cyanine dye-containing)
IT **186523-84-2P**
(polymeric cyanine dyes and optical recording elements containing them)

L43 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:154978 HCAPLUS

DOCUMENT NUMBER: 126:158752

TITLE: Polymeric dyes for optical recording layers, and
recording elements containing them

INVENTOR(S): Burns, Elizabeth Gertrude; Kovacs, Csaba Andras;
Goswami, Ramanuj; Chapman, Derek D.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: Eur. Pat. Appl., 85 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 750020	A2	19961227	EP 1996-201669	19960614
EP 750020	A3	19990421		

R: DE, FR, GB

US 5786123 A 19980728 US 1996-618489 19960319

JP 09132626 A 19970520 JP 1996-158204 19960619

US 5824768 A 19981020 US 1997-909497 19970812

PRIORITY APPLN. INFO.:

US 1995-295P P 19950619

US 1996-618489 A 19960319

ED Entered STN: 10 Mar 1997

AB A recordable optical element (e.g., a writable CD) comprises a transparent substrate, a polymeric dye-containing recording layer on the surface of the substrate, and a metallic light-reflective layer. Use of polymeric dyes in the element improves the cohesion of the recording layer and its adhesion to the substrate and to the reflective layer.

IT 186523-84-2P 186523-86-4P 186523-87-5P
186523-89-7P 186523-90-0P 186523-92-2P
186523-94-4P 186523-95-5P 186523-97-7P
186523-98-8P 186524-00-5P 186524-01-6P
186524-03-8P 186524-06-1P 186524-08-3P
186524-09-4P 186524-11-8P 186524-13-0P
186524-15-2P 186524-20-9P 186524-22-1P
186524-24-3P 186524-27-6P 186524-29-8P
186524-31-2P 186524-32-3P 186524-35-6P
186524-37-8P 186524-39-0P 186524-40-3P
186524-43-6P 186524-45-8P 186524-47-0P
186524-49-2P 186524-50-5P 186524-51-6P
186524-52-7P 186524-53-8P 186524-56-1P
186524-57-2P

(optical recording elements containing polymeric dyes)

RN 186523-84-2 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 822-06-0

CMF C8 H12 N2 O2

OCN- (CH₂)₆-NCO

CM 2

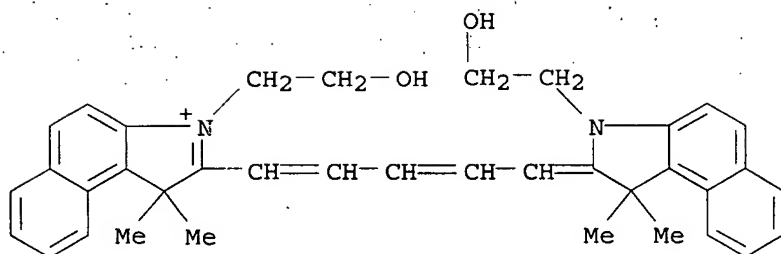
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 3

CRN 186523-82-0

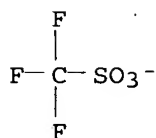
CMF C37 H39 N2 O2



CM 4

CRN 37181-39-8

CMF C F3 O3 S



RN 186523-86-4 HCAPLUS

CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,6-hexanediyliminocarbonyloxy-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

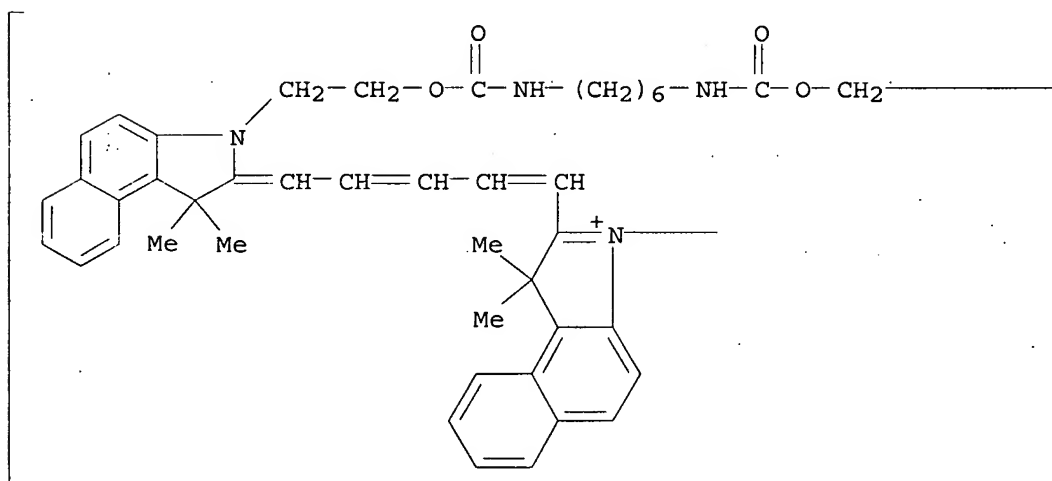
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CRN 186523-85-3

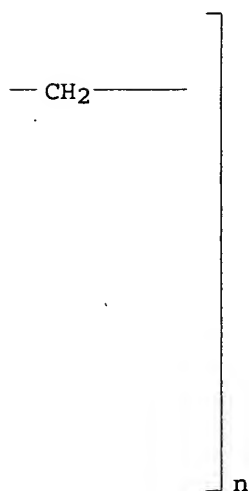
CMF (C45 H51 N4 O4)n

CCI PMS

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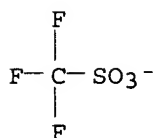
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CM 2

CRN 37181-39-8

CMF C F3 O3 S



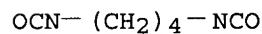
RN 186523-87-5 HCAPLUS

1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,4-diisocyanatobutane (9CI) (CA INDEX NAME)

CM 1

CRN 4538-37-8

CMF C6 H8 N2 O2



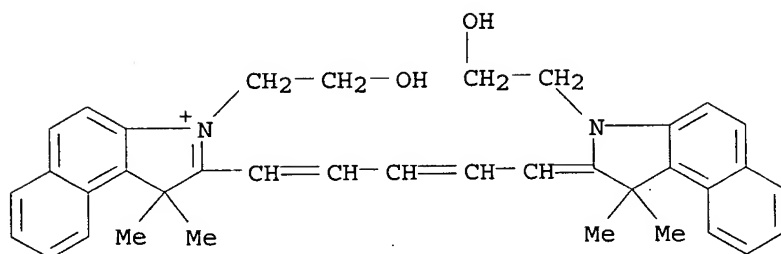
CM 2

CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

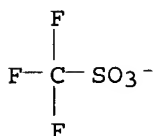
CM 3

CRN 186523-82-0
CMF C37 H39 N2 O2



CM 4

CRN 37181-39-8
CMF C F3 O3 S

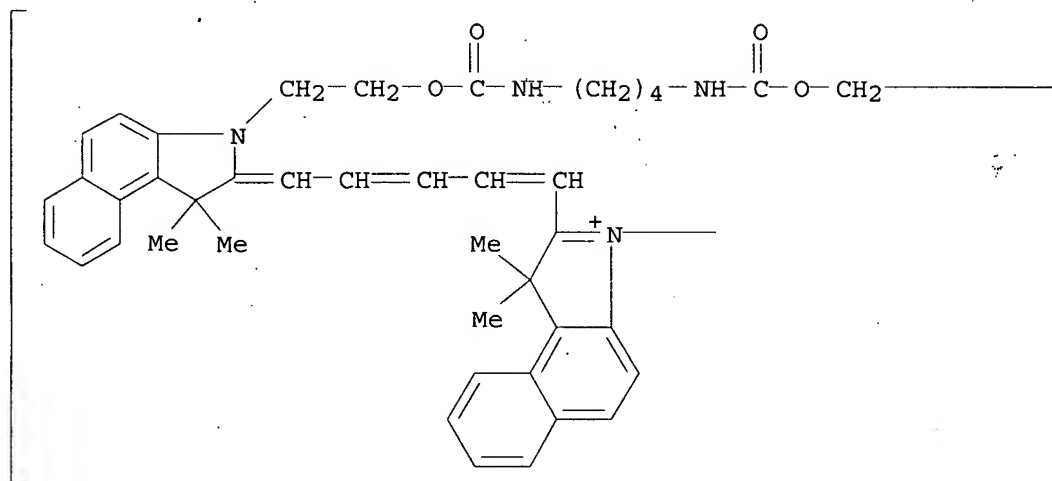


RN 186523-89-7 HCAPLUS
CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,4-butanediyliminocarbonyloxy-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

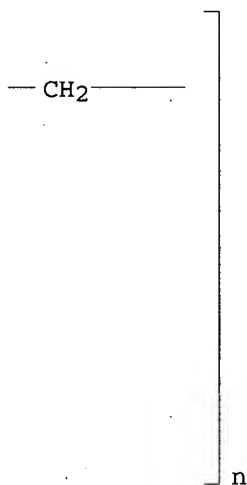
CM 1

CRN 186523-88-6
CMF (C43 H47 N4 O4)n
CCI PMS

PAGE 1-A



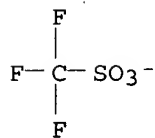
PAGE 1-B



CM 2

CRN 37181-39-8

CMF C F3 O3 S



RN 186523-90-0 HCAPLUS
 CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,12-diisocyanatododecane (9CI) (CA INDEX NAME)

CM 1

CRN 13879-35-1
 CMF C14 H24 N2 O2

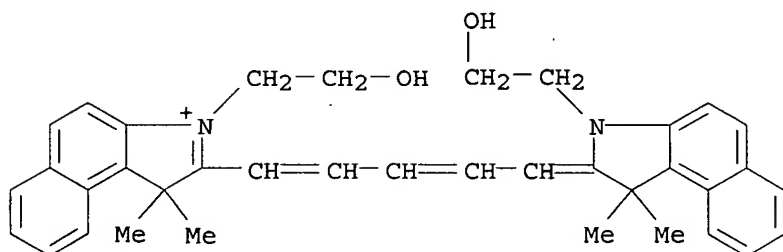
OCN-(CH₂)₁₂-NCO

CM 2

CRN 186523-83-1
 CMF C37 H39 N2 O2 . C F3 O3 S

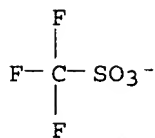
CM 3

CRN 186523-82-0
 CMF C37 H39 N2 O2



CM 4

CRN 37181-39-8
 CMF C F3 O3 S

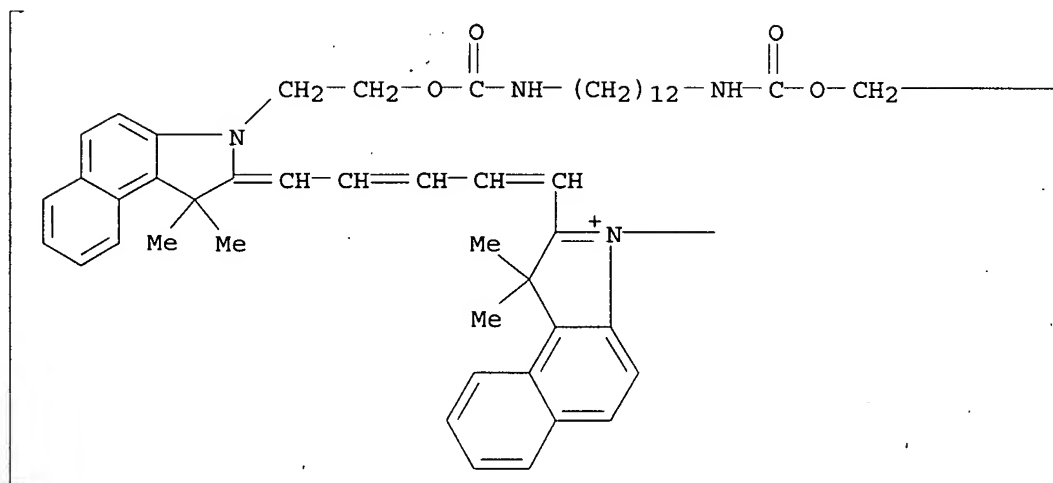


RN 186523-92-2 HCAPLUS
 CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,12-dodecanediyliminocarbonyloxy-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

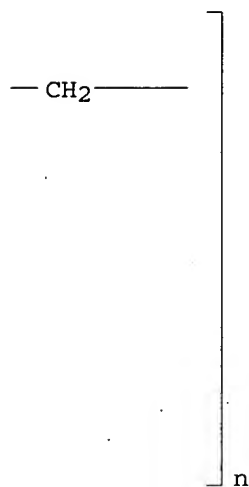
CM 1

CRN 186523-91-1
CMF (C51 H63 N4 O4)n
CCI PMS

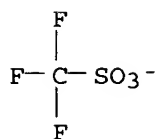
PAGE 1-A



PAGE 1-B



CM 2
CRN 37181-39-8
CMF C F3 O3 S



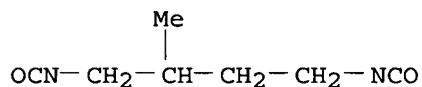
RN 186523-94-4 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,4-diisocyanato-2-methylbutane (9CI) (CA INDEX NAME)

CM 1

CRN 186523-93-3

CMF C7 H10 N2 O2



CM 2

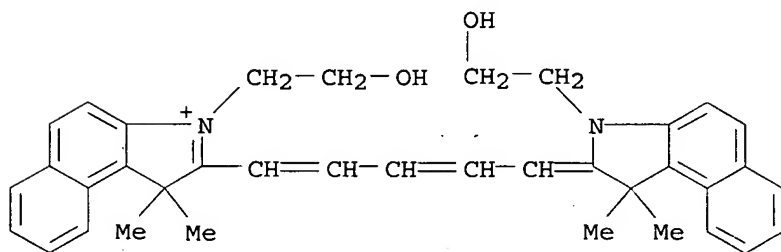
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 3

CRN 186523-82-0

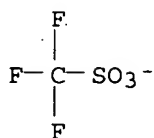
CMF C37 H39 N2 O2



CM 4

CRN 37181-39-8

CMF C F3 O3 S



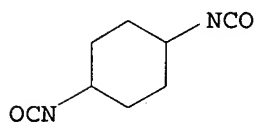
RN 186523-95-5 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,4-diisocyanatocyclohexane (9CI) (CA INDEX NAME)

CM 1

CRN 2556-36-7

CMF C8 H10 N2 O2



CM 2

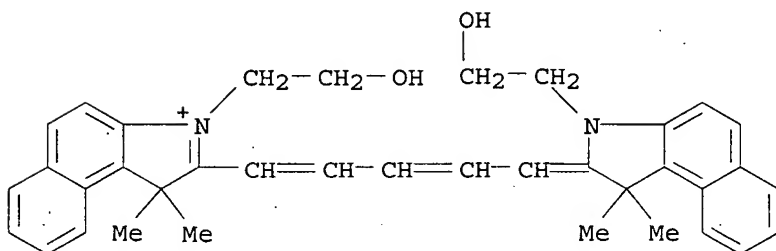
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 3

CRN 186523-82-0

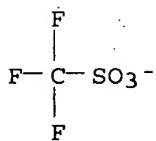
CMF C37 H39 N2 O2



CM 4

CRN 37181-39-8

CMF C F3 O3 S



RN 186523-97-7 HCAPLUS

CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,4-cyclohexanediyliminocarbonyloxy-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

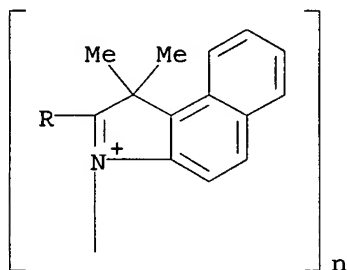
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CRN 186523-96-6

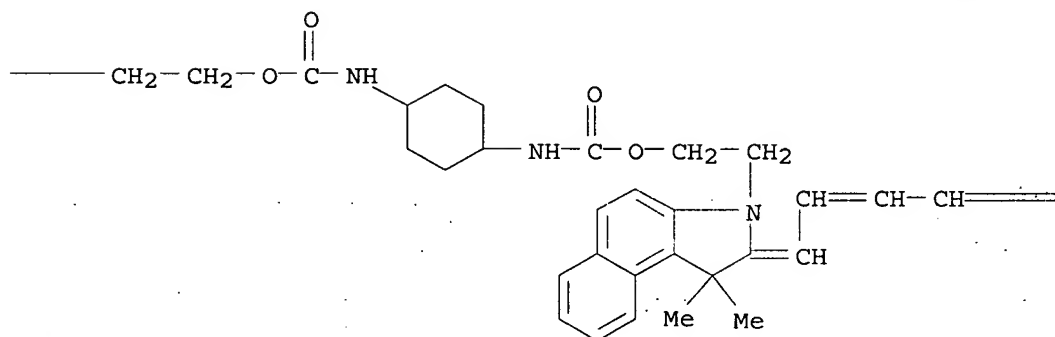
CMF (C45 H49 N4 O4)n

CCI PMS

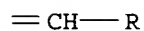
PAGE 1-A



PAGE 2-A



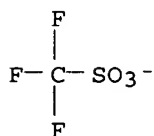
PAGE 2-B



CM 2

CRN 37181-39-8

CMF C F3 O3 S



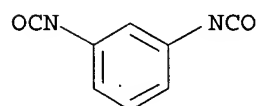
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CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,3-diisocyanatobenzene (9CI) (CA INDEX NAME)

CM 1

CRN 123-61-5

CMF C8 H4 N2 O2



CM 2

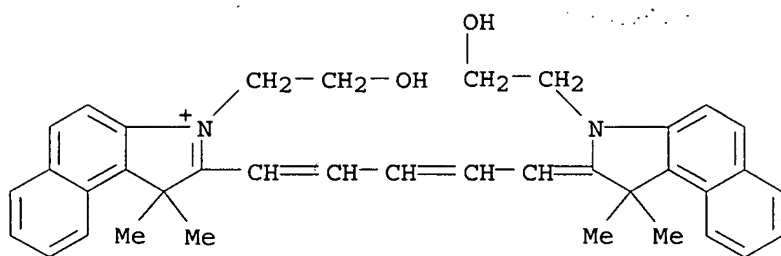
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 3

CRN 186523-82-0

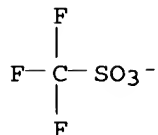
CMF C37 H39 N2 O2



CM 4

CRN 37181-39-8

CMF C F3 O3 S



RN 186524-00-5 HCAPLUS

CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,3-phenyleneiminocarbonyloxy-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

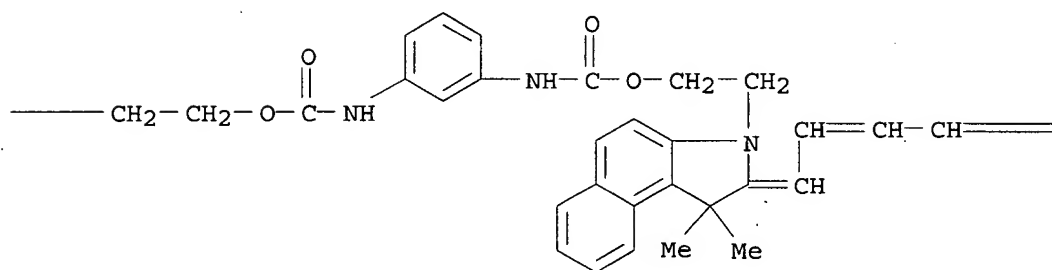
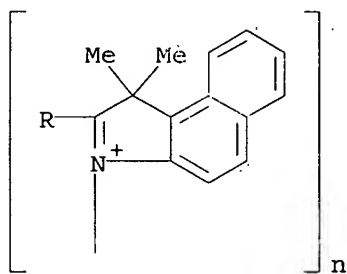
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CRN 186523-99-9

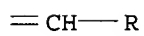
CMF (C45 H43 N4 O4)n

CCI PMS

PAGE 1-A



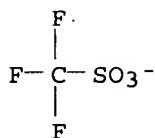
PAGE 1-B



CM 2

CRN 37181-39-8

CMF C F3 O3 S



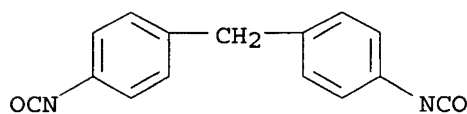
RN 186524-01-6 HCAPLUS

CM 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 101-68-8

CMF C15 H10 N2 O2



CM 2

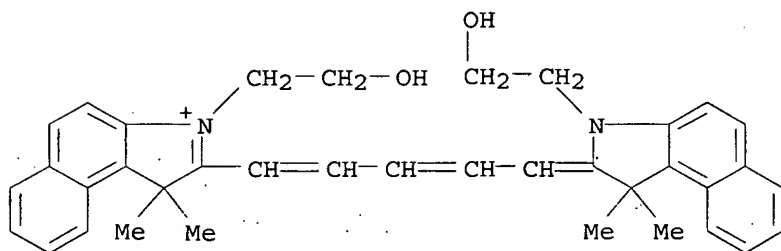
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 3

CRN 186523-82-0

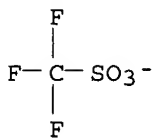
CMF C37 H39 N2 O2



CM 4

CRN 37181-39-8

CMF C F3 O3 S



RN 186524-03-8 HCAPLUS

CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,4-phenylenemethylene-1,4-phenyleneiminocarbonyloxy-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

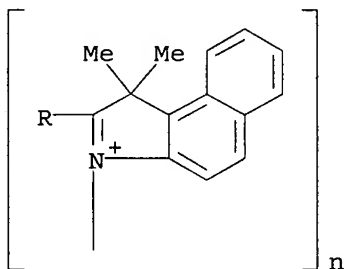
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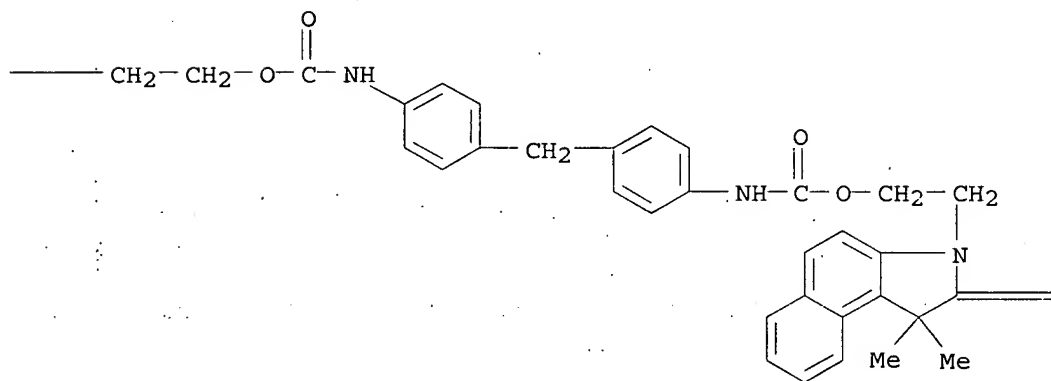
CMF (C52 H49 N4 O4)n

CCI PMS

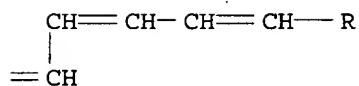
PAGE 1-A



PAGE 2-A



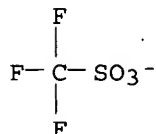
PAGE 2-B



CM 2

CRN 37181-39-8

CMF C F3 O3 S



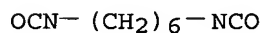
RN 186524-06-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-1-(2-hydroxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-1-(2-hydroxyethyl)-3,3-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 822-06-0

CMF C8 H12 N2 O2



CM 2

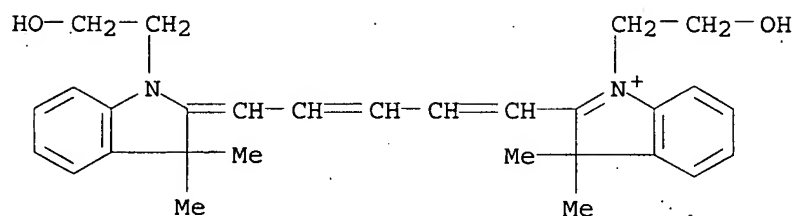
CRN 186524-05-0

CMF C29 H35 N2 O2 . C F3 O3 S

CM 3

CRN 186524-04-9

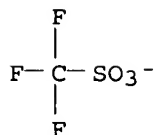
CMF C29 H35 N2 O2



CM 4

CRN 37181-39-8

CMF C F3 O3 S



RN 186524-08-3 HCAPLUS

CN Poly[(3,3-dimethyl-3H-indolium-1,2-diyl)-1,3-pentadien-1-yl-5-ylidene(2,3-dihydro-3,3-dimethyl-1H-indol-1-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,6-hexanediyliminocarbonyloxy-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

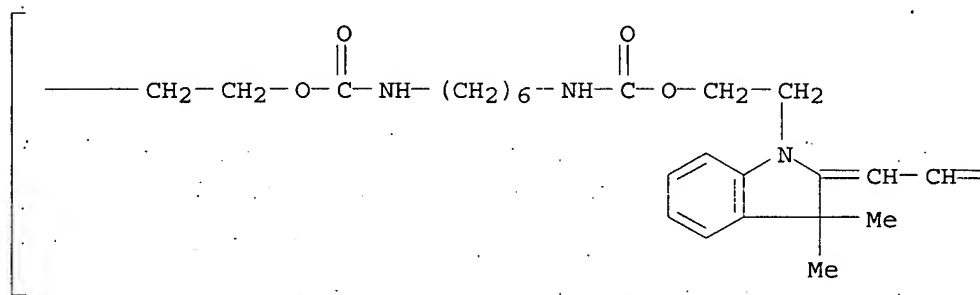
CM 1

CRN 186524-07-2

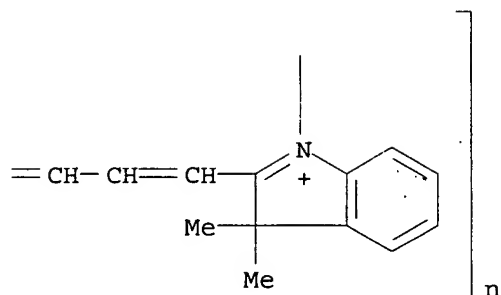
CMF (C37 H47 N4 O4)n

CCI PMS

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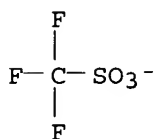
PAGE 1-B



CM 2

CRN 37181-39-8

CMF C F3 O3 S



RN 186524-09-4 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 2-[5-[1,3-dihydro-1-(2-hydroxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-1-(2-hydroxyethyl)-3,3-dimethyl-3H-indolium salt with trifluoromethanesulfonic acid (1:1), and 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 822-06-0

CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CM 2

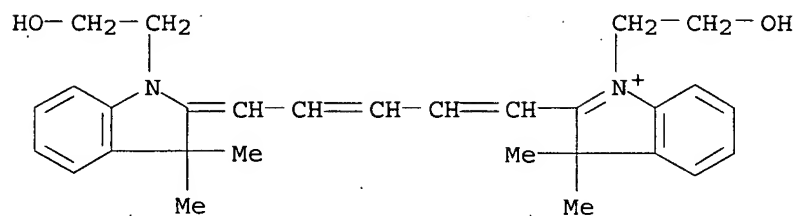
CRN 186524-05-0

CMF C29 H35 N2 O2 . C F3 O3 S

CM 3

CRN 186524-04-9

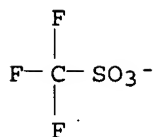
CMF C29 H35 N2 O2



CM 4

CRN 37181-39-8

CMF C F3 O3 S



CM 5

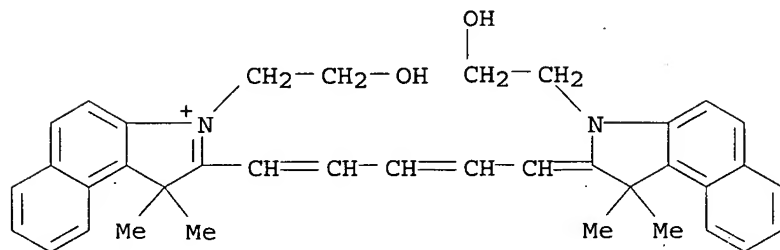
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 6

CRN 186523-82-0

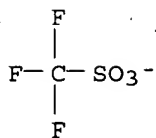
CMF C37 H39 N2 O2



CM 7

CRN 37181-39-8

CMF C F3 O3 S



RN 186524-11-8 HCAPLUS

CN 1H-Benz[e]indolium, 2-[7-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, tris[5-methoxy-2-(nitroso-κO)phenolato-κO]ferrate(1-), polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 822-06-0

CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CM 2

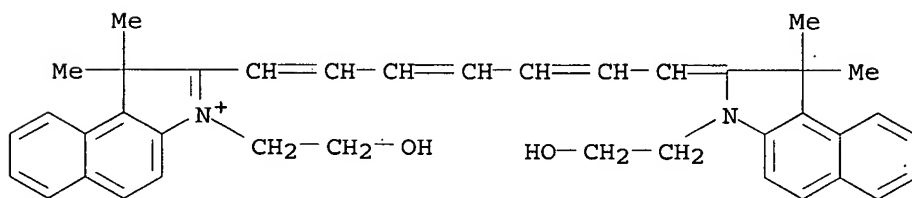
CRN 186524-10-7

CMF C39 H41 N2 O2 . C21 H18 Fe N3 O9

CM 3

CRN 95144-18-6

CMF C39 H41 N2 O2

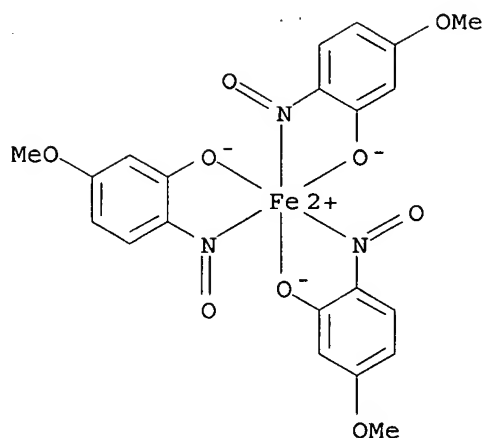


CM 4

CRN 57927-83-0

CMF C21 H18 Fe N3 O9

CCI CCS



RN 186524-13-0 HCAPLUS
 CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3,5-heptatrien-1-yl-7-ylidene(1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,6-hexanediyliminocarbonyloxy-1,2-ethanediyl tris[5-methoxy-2-(nitroso-κO)phenolato-κO]ferrate(1-)] (9CI) (CA INDEX NAME)

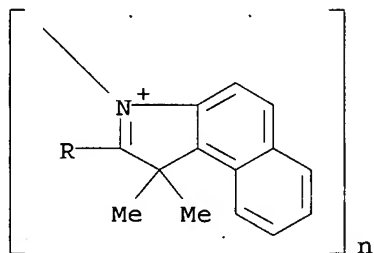
CM 1

CRN 186524-12-9

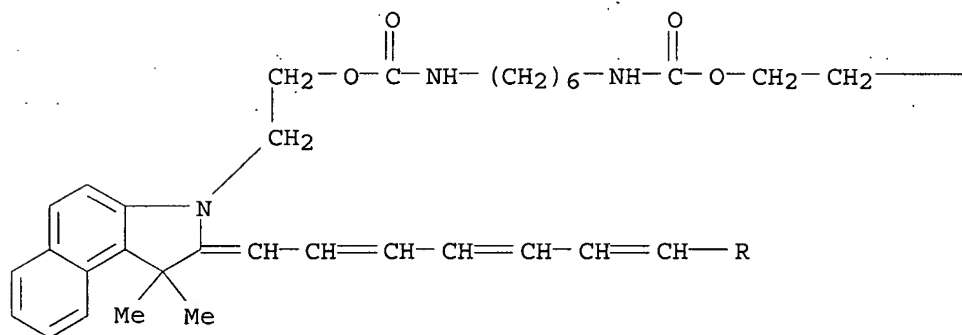
CMF (C47 H53 N4 O4)n

CCI PMS

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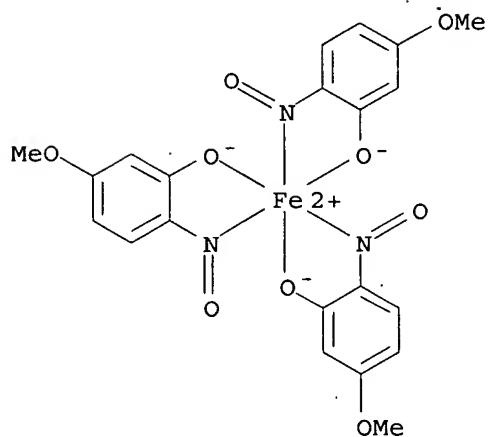


CM 2

CRN 57927-83-0

CMF C21 H18 Fe N3 O9

CCI CCS



RN 186524-15-2 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,4-diisocyanatobutane and 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 4538-37-8

CMF C6 H8 N2 O2

OCN-(CH₂)₄-NCO

CM 2

CRN 822-06-0

CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

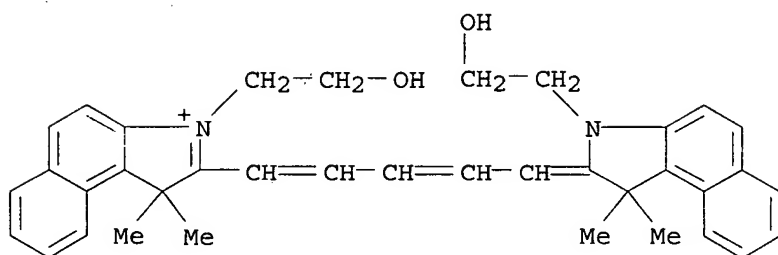
CM 3

CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

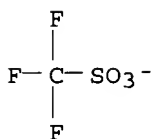
CM 4

CRN 186523-82-0
CMF C37 H39 N2 O2



CM 5

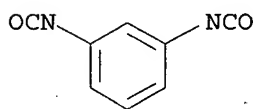
CRN 37181-39-8
CMF C F3 O3 S



RN 186524-20-9 HCAPLUS
CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,3-diisocyanatobenzene and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

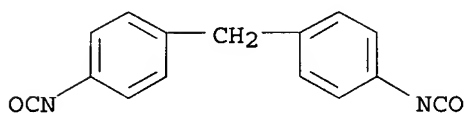
CM 1

CRN 123-61-5
CMF C8 H4 N2 O2



CM 2

CRN 101-68-8
CMF C15 H10 N2 O2



CM 3

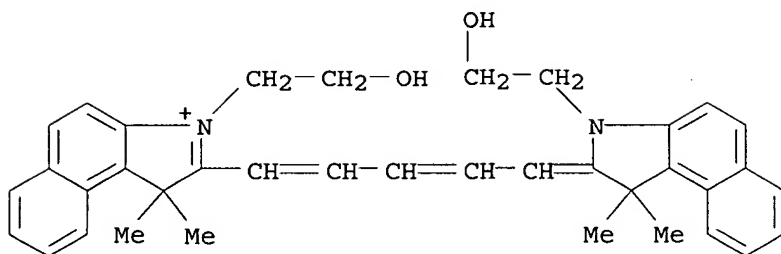
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 4

CRN 186523-82-0

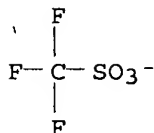
CMF C37 H39 N2 O2



CM 5

CRN 37181-39-8

CMF C F3 O3 S



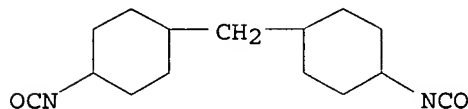
RN 186524-22-1 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] (9CI) (CA INDEX NAME)

CM 1

CRN 5124-30-1

CMF C15 H22 N2 O2



CM 2

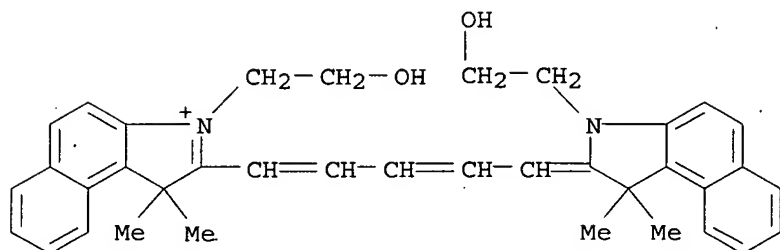
CRN 186523-83-1

CMF C37 H39 N2 O2 C F3 O3 S

CM 3

CRN 186523-82-0

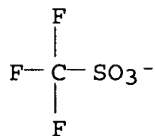
CMF C37 H39 N2 O2



CM 4

CRN 37181-39-8

CMF C F3 O3 S



RN 186524-24-3 HCAPLUS

CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,4-cyclohexanediylmethylene-1,4-cyclohexanediyliminocarbonyloxy-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

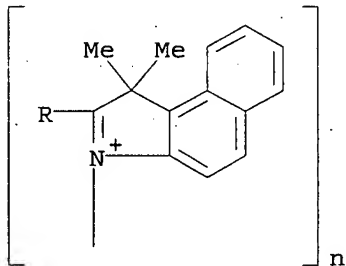
CM 1

CRN 186524-23-2

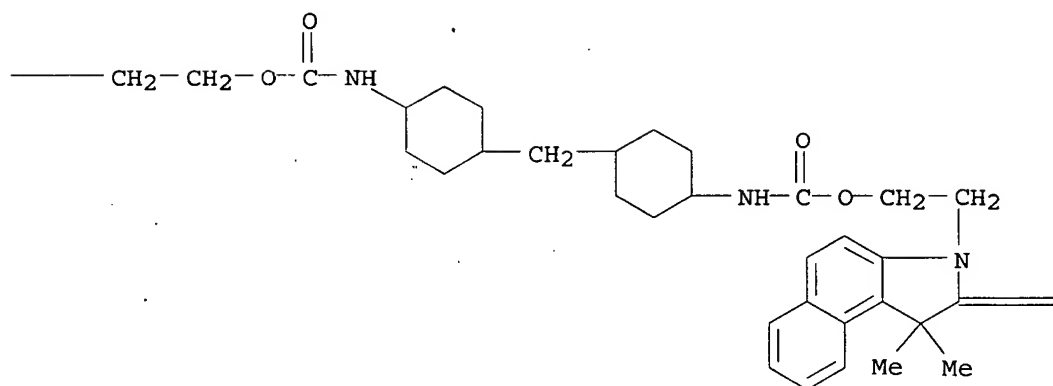
CMF (C52 H61 N4 O4)n

CCI PMS

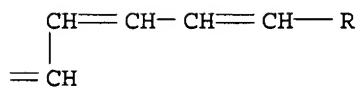
PAGE 1-A



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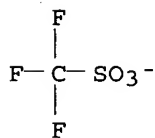
PAGE 2-B



CM 2

CRN 37181-39-8

CMF C F3 O3 S



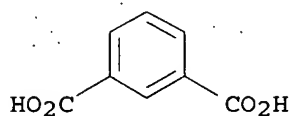
RN 186524-27-6 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,3-benzenedicarboxylic acid (9CI) (CA INDEX NAME)

CM 1

CRN 121-91-5

CMF C8 H6 O4



CM 2

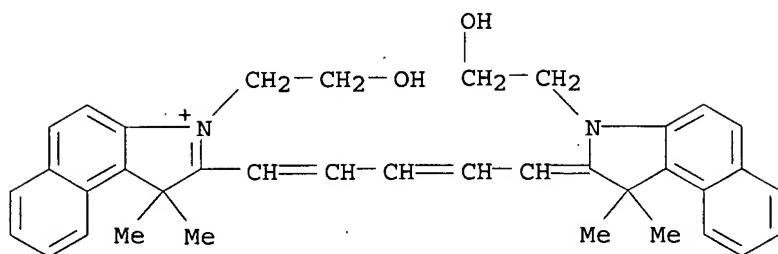
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 3

CRN 186523-82-0

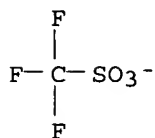
CMF C37 H39 N2 O2



CM 4

CRN 37181-39-8

CMF C F3 O3 S



RN 186524-29-8 HCAPLUS

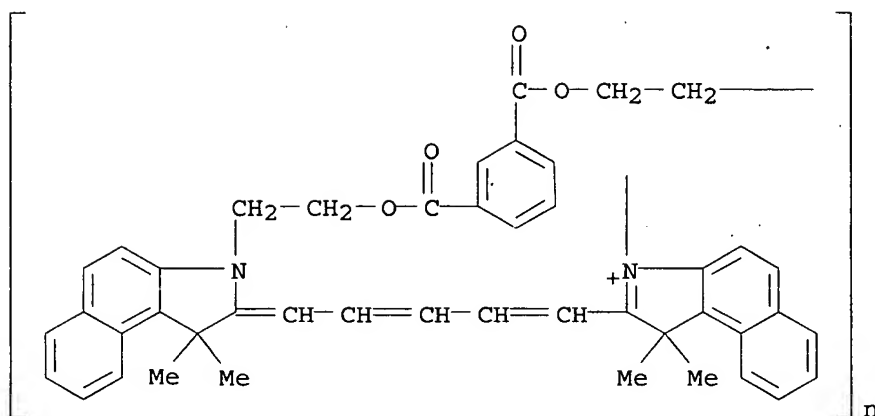
CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonyl-1,3-phenylenecarbonyloxy-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

CM 1

CRN 186524-28-7

CMF (C45 H41 N2 O4)n

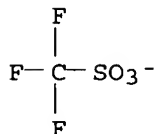
CCI PMS



CM 2

CRN 37181-39-8

CMF C F3 O3 S



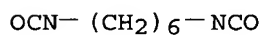
RN 186524-31-2 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with 4-methylbenzenesulfonic acid (1:1), polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 822-06-0

CMF C8 H12 N2 O2



CM 2

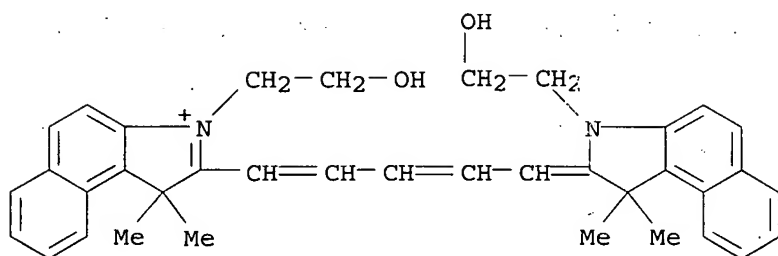
CRN 186524-30-1

CMF C37 H39 N2 O2 . C7 H7 O3 S

CM 3

CRN 186523-82-0

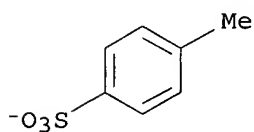
CMF C37 H39 N2 O2



CM 4

CRN 16722-51-3

CMF C7 H7 O3 S



RN 186524-32-3 HCAPLUS

CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,6-hexanediyliminocarbonyloxy-1,2-ethanediyl salt with 4-methylbenzenesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

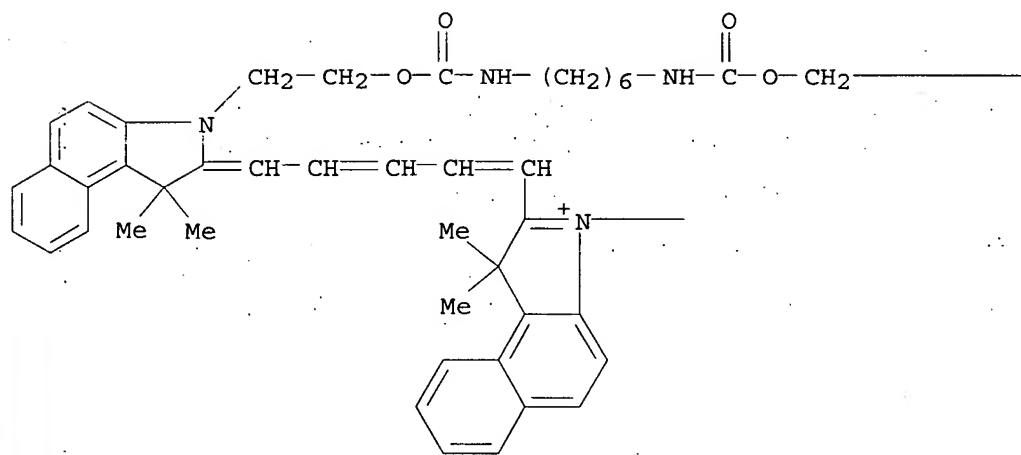
CM 1

CRN 186523-85-3

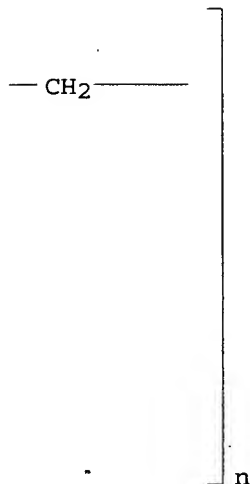
CMF (C45 H51 N4 O4)n

CCI PMS

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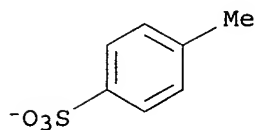
PAGE 1-B



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



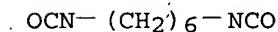
RN 186524-35-6 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-7-methoxy-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-7-methoxy-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 822-06-0

CMF C8 H12 N2 O2



CM 2

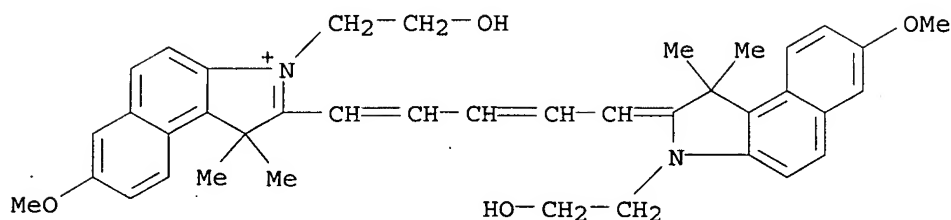
CRN 186524-34-5

CMF C39 H43 N2 O4 . C F3 O3 S

CM 3

CRN 186524-33-4

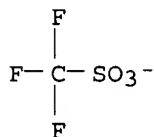
CMF C39 H43 N2 O4



CM 4

CRN 37181-39-8

CMF C F3 O3 S



RN 186524-37-8 HCAPLUS

CN Poly[(7-methoxy-1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(7-methoxy-1,1-dimethyl-1H-benz[e]indol-3(2H)-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,6-hexanediyliminocarbonyloxy-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

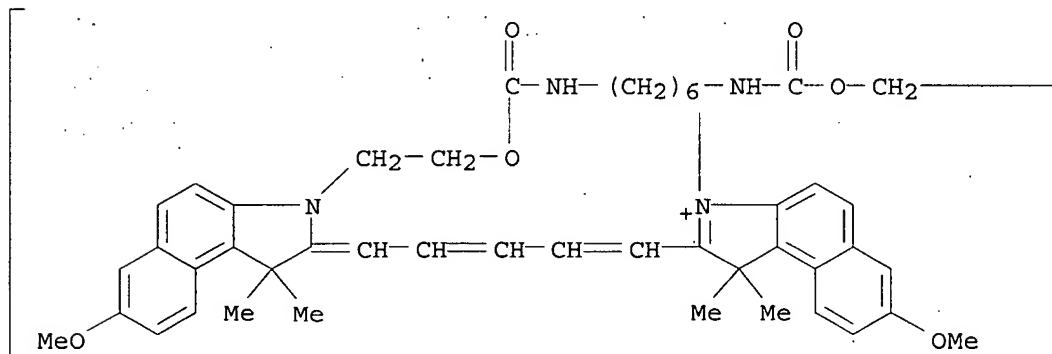
CM 1

CRN 186524-36-7

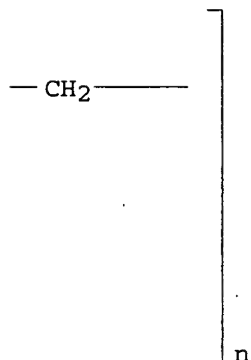
CMF (C47 H55 N4 O6)n

CCI PMS

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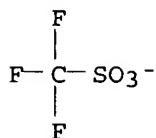
PAGE 1-B



CM 2

CRN 37181-39-8

CMF C F3 O3 S



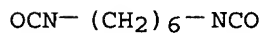
RN 186524-39-0 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, tris[1-(nitroso-κN)-2-naphthalenolato-κO]ferrate(1-), polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 822-06-0

CMF C8 H12 N2 O2



CM 2

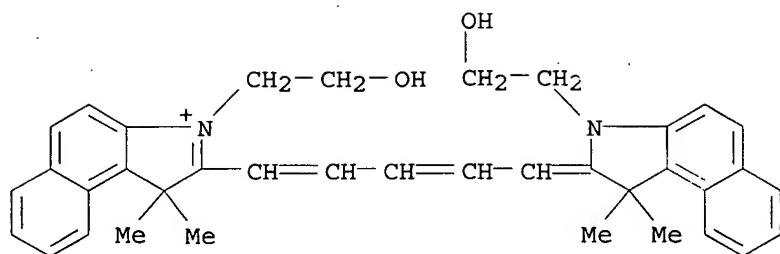
CRN 186524-38-9

CMF C37 H39 N2 O2 . C30 H18 Fe N3 O6

CM 3

CRN 186523-82-0

CMF C37 H39 N2 O2

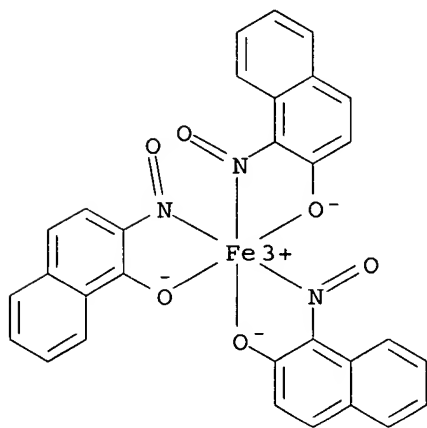


CM 4

CRN 130547-27-2

CMF C30 H18 Fe N3 O6

CCI CCS



RN 186524-40-3 HCAPLUS

CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,3-dihydro-1,1-dimethyl-1H-benz[e]indol-3-yl-2-ylidene)-1,2-ethanediylloxycarbonylimino-1,6-hexanediyliminocarbonyloxy-1,2-ethanediyl tris[1-(nitroso-κN)-2-naphthalenolato-κO]ferrate(1-)] (9CI) (CA INDEX NAME)

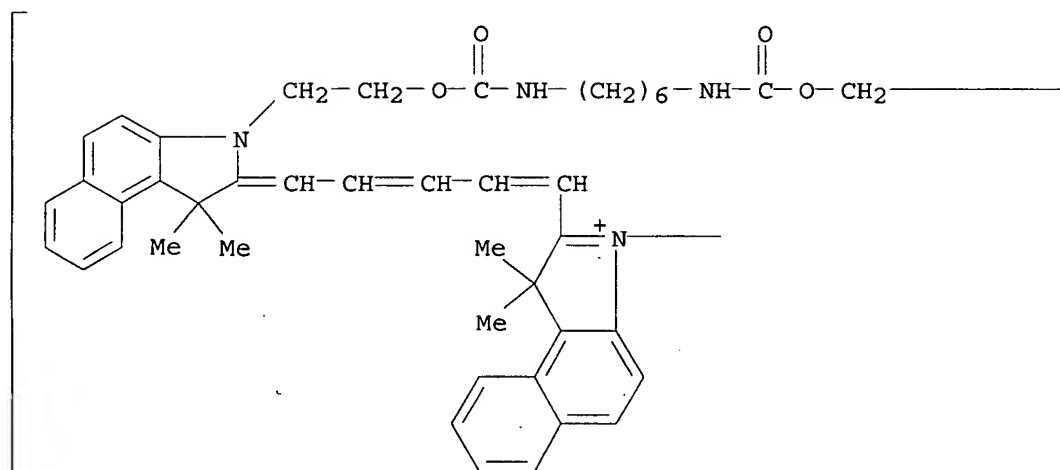
CM 1

CRN 186523-85-3

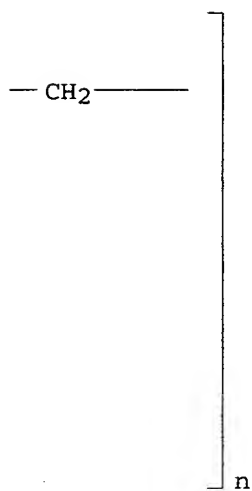
CMF (C45 H51 N4 O4)n

CCI PMS

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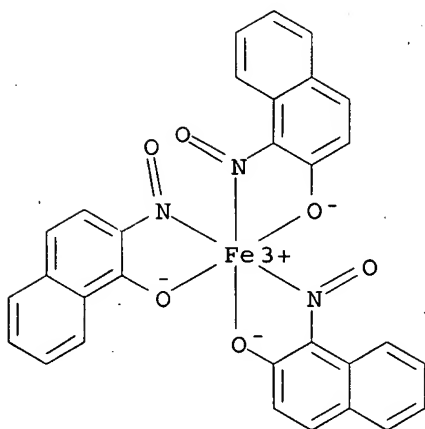


CM 2

CRN 130547-27-2

CMF C30 H18 Fe N3 O6

CCI CCS



RN 186524-43-6 HCAPLUS

CN 1H-Benz[e]indolium, 3-(2-aminoethyl)-2-[5-[3-(2-aminoethyl)-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 822-06-0

CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CM 2

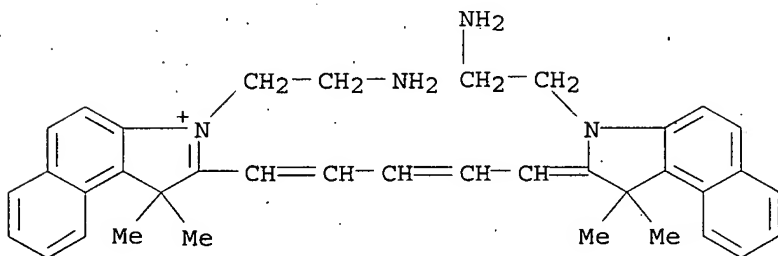
CRN 186524-42-5

CMF C37 H41 N4 . C F3 O3 S

CM 3

CRN 186524-41-4

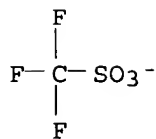
CMF C37 H41 N4



CM 4

CRN 37181-39-8

CMF C F3 O3 S



RN 186524-45-8 HCAPLUS

CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,3-dihydro-1,1-dimethyl-1H-benz[e]indol-3-yl-2-ylidene)-1,2-ethanediyliminocarbonylimino-1,6-hexanediyliminocarbonylimino-1,2-ethanediyl salt with trifluoromethanesulfonic acid (1:1)] (9CI) (CA INDEX NAME)

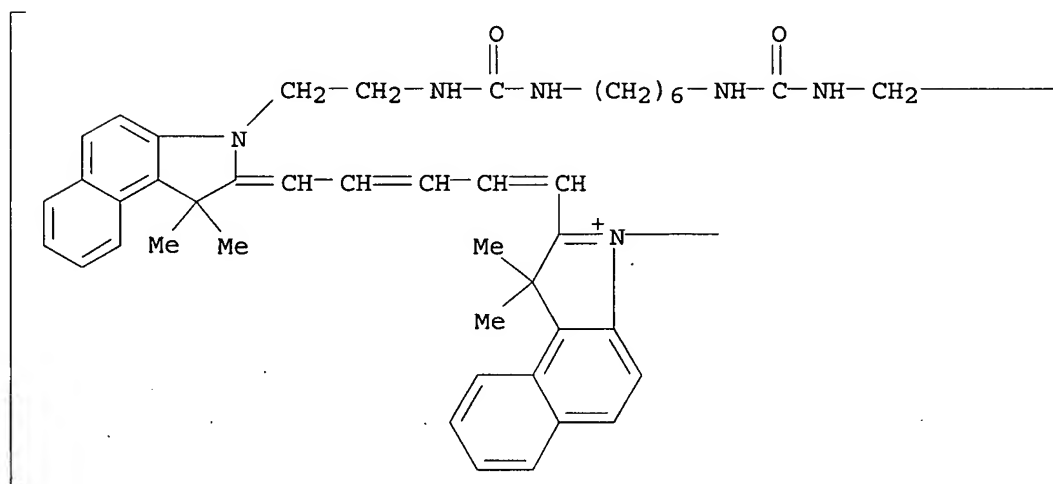
CM 1

CRN 186524-44-7

CMF (C45 H53 N6 O2)n

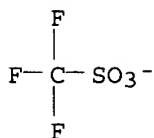
CCI PMS

PAGE 1-A

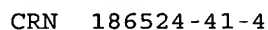


$$\text{---CH}_2\text{---}$$

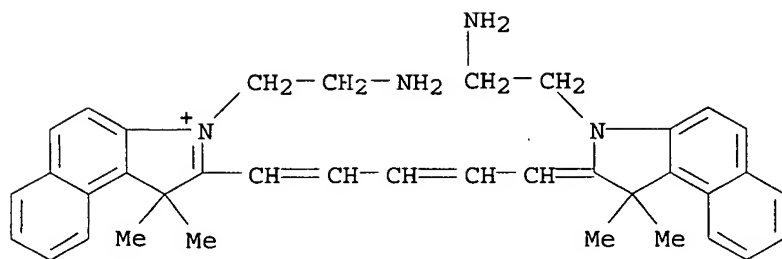
CRN 37181-39-8
CMF C F3 O3 S



CRN 505-48-6
CMF C8 H14 O4



CMF C37 H41 N4

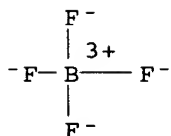


CM 4

CRN 14874-70-5

CMF B F4

CCI CCS



RN 186524-49-2 HCAPLUS

CN Poly[(1,1-dimethyl-1H-benz[e]indolium-3,2-diyl)-1,3-pentadien-1-yl-5-ylidene(1,3-dihydro-1,1-dimethyl-1H-benz[d]indol-3-yl-2-ylidene)-1,2-ethanediylimino(1,8-dioxo-1,8-octanediyl)imino-1,2-ethanediyl tetrafluoroborate(1-)] (9CI) (CA INDEX NAME)

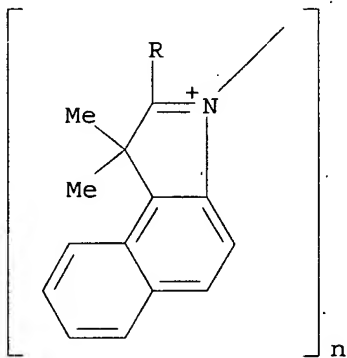
CM 1

CRN 186524-48-1

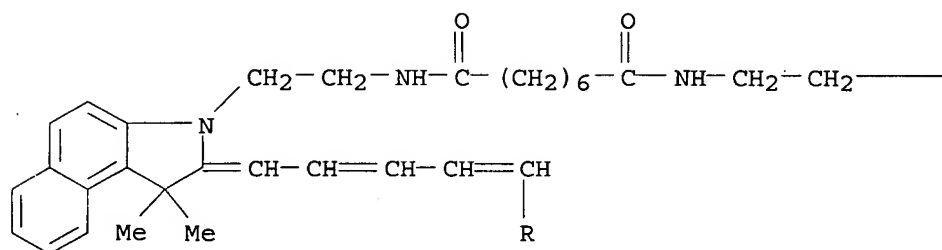
CMF (C45 H51 N4 O2)n

CCI PMS

PAGE 1-A



PAGE 2-A

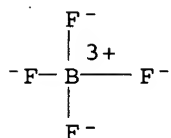


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



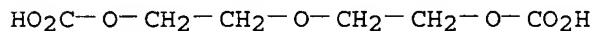
RN 186524-50-5 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 2-[5-[1,3-dihydro-1-(2-hydroxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-1-(2-hydroxyethyl)-3,3-dimethyl-3H-indolium salt with trifluoromethanesulfonic acid (1:1), and oxydi-2,1-ethanediyl bis(hydrogen carbonate) (9CI) (CA INDEX NAME)

CM 1

CRN 57557-13-8

CMF C6 H10 O7



CM 2

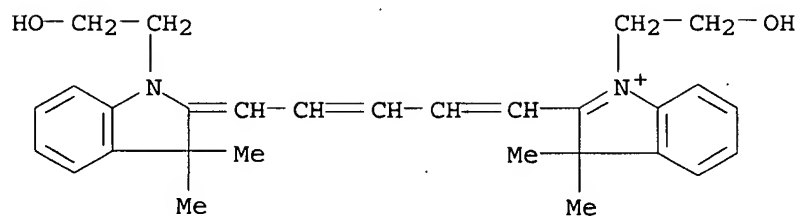
CRN 186524-05-0

CMF C29 H35 N2 O2 . C F3 O3 S

CM 3

CRN 186524-04-9

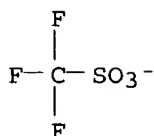
CMF C29 H35 N2 O2



CM 4

CRN 37181-39-8

CMF C F3 O3 S



CM 5

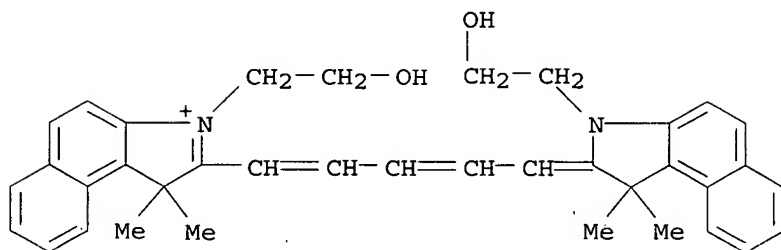
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 6

CRN 186523-82-0

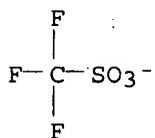
CMF C37 H39 N2 O2



CM 7

CRN 37181-39-8

CMF C F3 O3 S



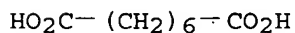
RN 186524-51-6 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with hexanedioic acid and octanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 505-48-6

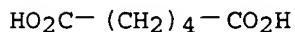
CMF C8 H14 O4



CM 2

CRN 124-04-9

CMF C6 H10 O4



CM 3

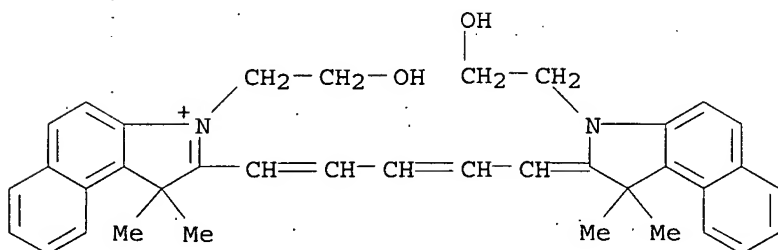
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 4

CRN 186523-82-0

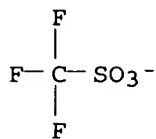
CMF C37 H39 N2 O2



CM 5

CRN 37181-39-8

CMF C F3 O3 S



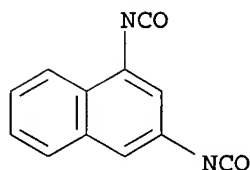
RN 186524-52-7 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,3-diisocyanatobenzene and 1,3-diisocyanatonaphthalene (9CI) (CA INDEX NAME)

CM 1

CRN 24448-12-2

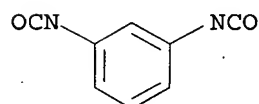
CMF C12 H6 N2 O2



CM 2

CRN 123-61-5

CMF C8 H4 N2 O2



CM 3

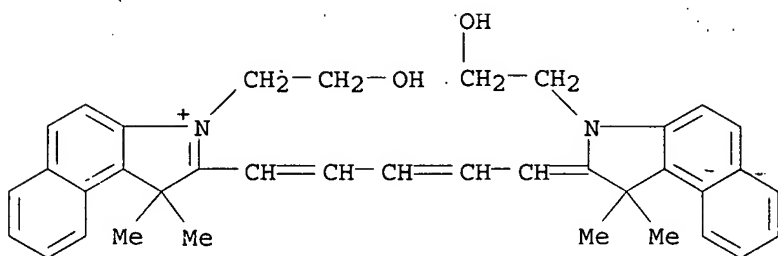
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 4

CRN 186523-82-0

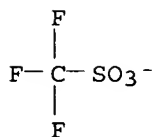
CMF C37 H39 N2 O2



CM 5

CRN 37181-39-8

CMF C F3 O3 S



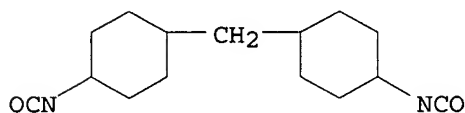
RN 186524-53-8 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with 1,3-diisocyanatobenzene and 1,1'-methylenebis[4-isocyanatocyclohexane] (9CI) (CA INDEX NAME)

CM 1

CRN 5124-30-1

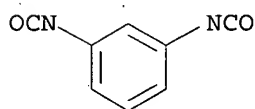
CMF C15 H22 N2 O2



CM 2

CRN 123-61-5

CMF C8 H4 N2 O2



CM 3

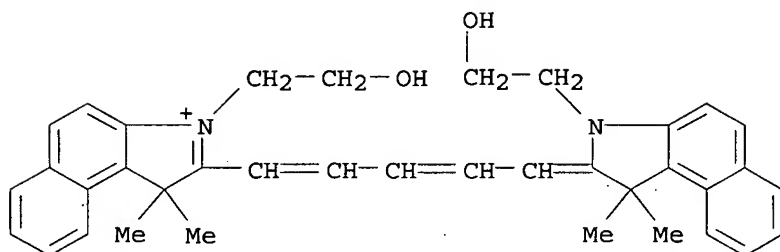
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 4

CRN 186523-82-0

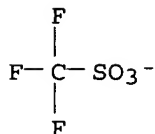
CMF C37 H39 N2 O2



CM 5

CRN 37181-39-8

CMF C F3 O3 S



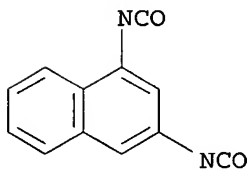
RN 186524-56-1 HCAPLUS

CN Naphth[2,1-d]oxazolium, 3-(2-hydroxyethyl)-2-[5-[3-(2-hydroxyethyl)naphth[2,1-d]oxazol-2(3H)-ylidene]-1,3-pentadienyl]-, salt with trifluoromethanesulfonic acid (1:1), polymer with 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-1H-benz[e]indolium salt with trifluoromethanesulfonic acid (1:1), 1,12-diisocyanatododecane and 1,3-diisocyanatonaphthalene (9CI) (CA INDEX NAME)

CM 1

CRN 24448-12-2

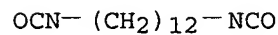
CMF C12 H6 N2 O2



CM 2

CRN 13879-35-1

CMF C14 H24 N2 O2



CM 3

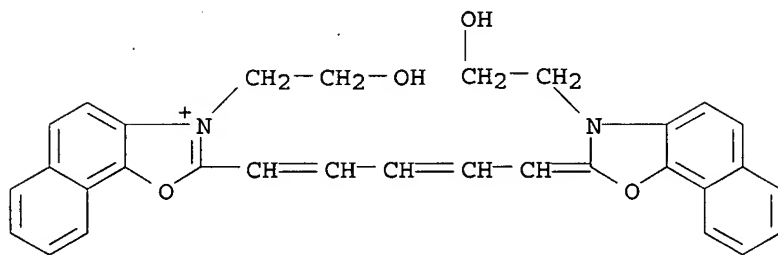
CRN 186524-55-0

CMF C31 H27 N2 O4 . C F3 O3 S

CM 4

CRN 186524-54-9

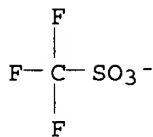
CMF C31 H27 N2 O4



CM 5

CRN 37181-39-8

CMF C F3 O3 S



CM 6

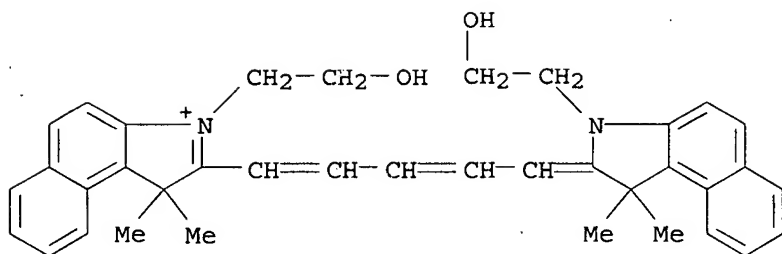
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 7

CRN 186523-82-0

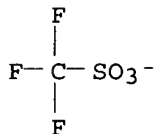
CMF C37 H39 N2 O2



CM 8

CRN 37181-39-8

CMF C F3 O3 S



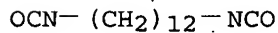
RN 186524-57-2 HCAPLUS

CN Naphth[2,1-d]oxazolium, 3-(2-hydroxyethyl)-2-[5-[3-(2-hydroxyethyl)naphth[2,1-d]oxazol-2(3H)-ylidene]-1,3-pentadienyl]-, salt with trifluoromethanesulfonic acid (1:1), polymer with 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-1H-benz[e]indolium salt with trifluoromethanesulfonic acid (1:1), 1,12-diisocyanatododecane and 2,4-diisocyanato-1-methylenebenzene (9CI) (CA INDEX NAME)

CM 1

CRN 13879-35-1

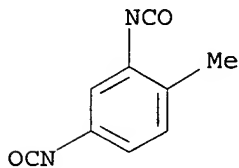
CMF C14 H24 N2 O2



CM 2

CRN 584-84-9

CMF C9 H6 N2 O2



CM 3

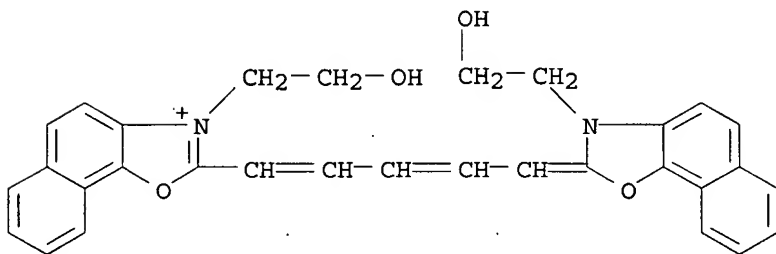
CRN 186524-55-0

CMF C31 H27 N2 O4 . C F3 O3 S

CM 4

CRN 186524-54-9

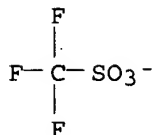
CMF C31 H27 N2 O4



CM 5

CRN 37181-39-8

CMF C F3 O3 S



CM 6

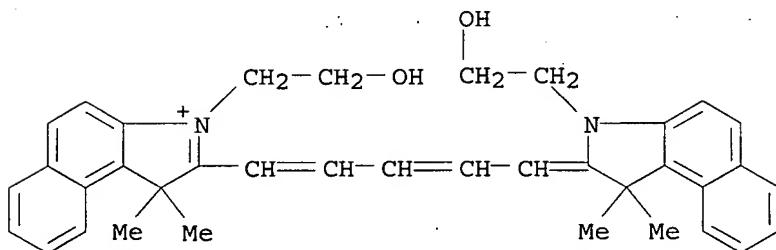
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 7

CRN 186523-82-0

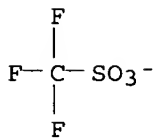
CMF C37 H39 N2 O2



CM 8

CRN 37181-39-8

CMF C F3 O3 S



IC ICM C09B069-10

ICS G11B007-24

CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 35, 74

IT Optical recording materials

(optical recording elements containing polymeric dyes)

IT 186523-84-2P 186523-86-4P 186523-87-5P

186523-89-7P 186523-90-0P 186523-92-2P

186523-94-4P 186523-95-5P 186523-97-7P

186523-98-8P 186524-00-5P 186524-01-6P

186524-03-8P 186524-06-1P 186524-08-3P

186524-09-4P 186524-11-8P 186524-13-0P

186524-15-2P 186524-18-5P 186524-19-6P

186524-20-9P 186524-22-1P 186524-24-3P

186524-26-5P 186524-27-6P 186524-29-8P

186524-31-2P 186524-32-3P 186524-35-6P

186524-37-8P 186524-39-0P 186524-40-3P

186524-43-6P 186524-45-8P 186524-47-0P

186524-49-2P 186524-50-5P 186524-51-6P

186524-52-7P 186524-53-8P 186524-56-1P

186524-57-2P 186524-59-4P 186524-61-8P 186524-62-9P

186848-75-9P

(optical recording elements containing polymeric dyes)

L43 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:151478 HCAPLUS

DOCUMENT NUMBER: 126:164325

TITLE: Transition metal formazan complex-cyanine dye copolymers for optical recording layers of compact disks.

INVENTOR(S): Burns, Elizabeth Gertruded Fr Gb; Goswami, Ramanuj; Kovacs, Csaba Andras

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: Eur. Pat. Appl., 32 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 750019	A2	19961227	EP 1996-201668	19960614
EP 750019	A3	19990421		

EP 750019

B1

20010829

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JP 1996-158460

19960619

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PRIORITY APPLN. INFO.:

US 1995-291P

P 19950619

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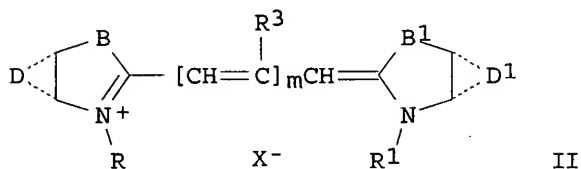
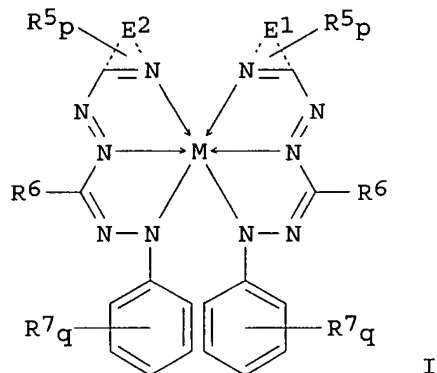
US 1996-621287

A 19960322

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ED Entered STN: 08 Mar 1997

GI



AB Optical recording materials are based on copolymers containing 70-100 mol.% of repeating units comprising a transition metal formazan complex radical and a cyanine dye radical. These copolymers show improved light stability and improved adhesion to the other layers of a compact disk structure. The formazan dye radical repeating unit is derived from a structure I (E1, E2 = atoms necessary to complete 5- or 6-membered heterocyclic ring; R5, R7 = H, C1-20 alkyl, C6-10 aryl, aralkyl, heteroalkyl, alkenyl, alkoxy, aryloxy, carbamyl, sulfamoyl, acylamino, sulfonylamino, halogen ureido, hydroxy, carbamoyloxy, nitro, cyano, thiocyno, carboxy; R6 = C1-20 alkyl, heterocycle, aryl, alkoxyphenyl, alkylphenyl, alkenyloxyphenyl, alkoxycarbonylphenyl; M = Ni, Pt, Pd, Zn; p, q = 0-4). Cyanine dye radical repeating unit is derived from II (D, D1 = aromatic or heterocyclic ring; B, B1 = O, S, Se; CH=CH, CMe2, N; B may combine with D or B1 may combine with D1 to form fused ring; R, R1 = C1-10 alkyl, C7-20 alkyl; R3 = H, C1-10 alkyl, C7-20 aralkyl, Cl, Br; X = anionic counterion; m = 1-2).

IT 186775-08-6P 186775-09-7P

(transition metal formazan complex-cyanine dye copolymers for optical recording layers of compact disks)

RN 186775-08-6 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-

2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with bis[2-[4-[[[4-(2-methylpropyl)phenyl]azo-κN2][(5-nitro-2-pyridinyl-κN)azo-κN2]methyl]phenoxy]ethanolato]nickel and 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

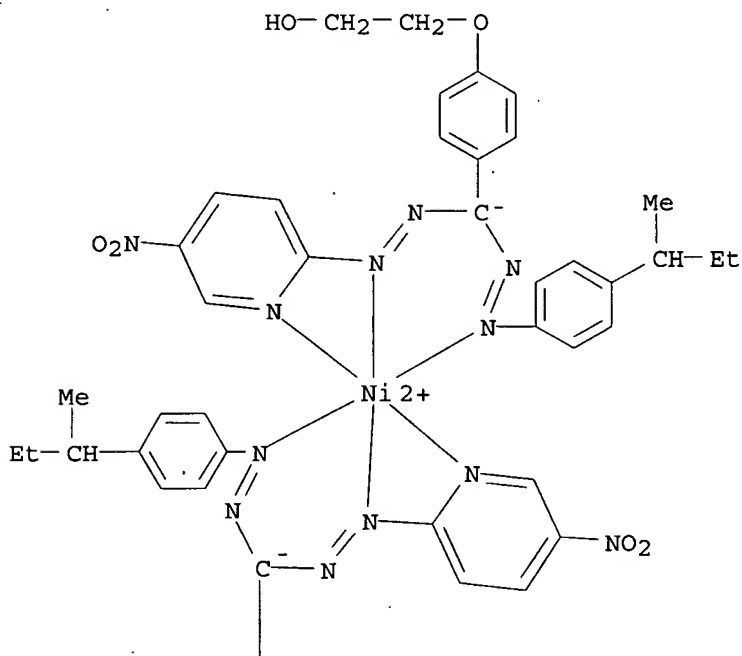
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CRN 186775-07-5

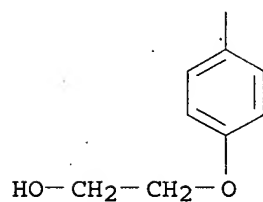
CMF C48 H50 N12 Ni O8

CCI CCS

PAGE 1-A



PAGE 2-A



CM 2

CRN 822-06-0

CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

OC

CM 3

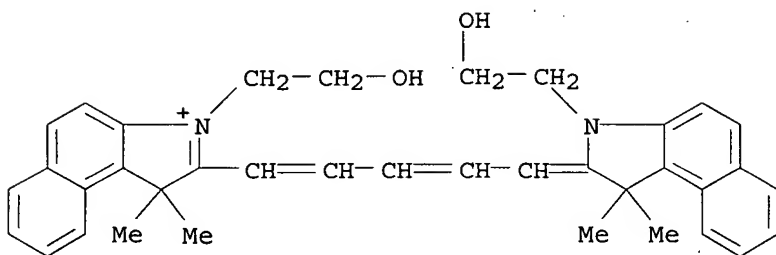
CRN 186523-83-1

CMF C37 H39 N2 O2 . C F3 O3 S

CM 4

CRN 186523-82-0

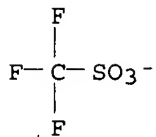
CMF C37 H39 N2 O2



CM 5

CRN 37181-39-8

CMF C F3 O3 S



RN 186775-09-7 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, tetrafluoroborate(1-), polymer with bis[4-[[[(5-nitro-2-pyridinyl-κN)azo-κN2][2-(2-propenyloxy)phenyl]methyl]azo-κN1]benzeneethanolato]nickel and 1,6-diisocyanatohexane (9CI)
(CA INDEX NAME)

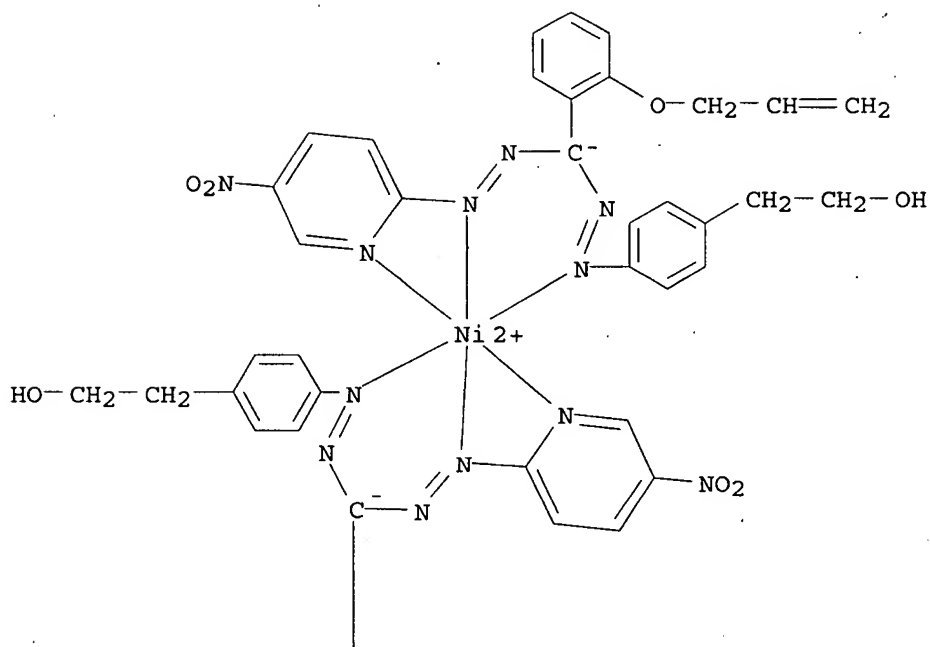
CM 1

CRN 186775-05-3

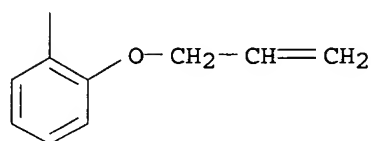
CMF C46 H42 N12 Ni O8

CCI CCS

PAGE 1-A



PAGE 2-A



CM 2

CRN 822-06-0

CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CM 3

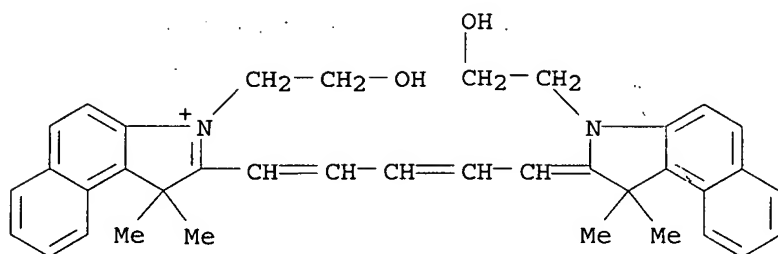
CRN 186775-06-4

CMF C37 H39 N2 O2 . B F4

CM 4

CRN 186523-82-0

CMF C37 H39 N2 O2

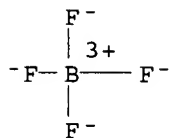


CM 5

CRN 14874-70-5

CMF B F4

CCI CCS



IT 186775-12-2 186775-13-3 186775-14-4

(transition metal formazan complex-cyanine dye copolymers for optical recording layers of compact disks)

RN 186775-12-2 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-[(4-hydroxyphenyl)methyl]-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-[(4-hydroxyphenyl)methyl]-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with bis[2-[4-[[[4-(2-methylpropyl)phenyl]azo-κN2][(5-nitro-2-pyridinyl-κN)azo-κN2]methyl]phenoxy]ethanolato]nickel and 1,4-diisocyanatobutane (9CI) (CA INDEX NAME)

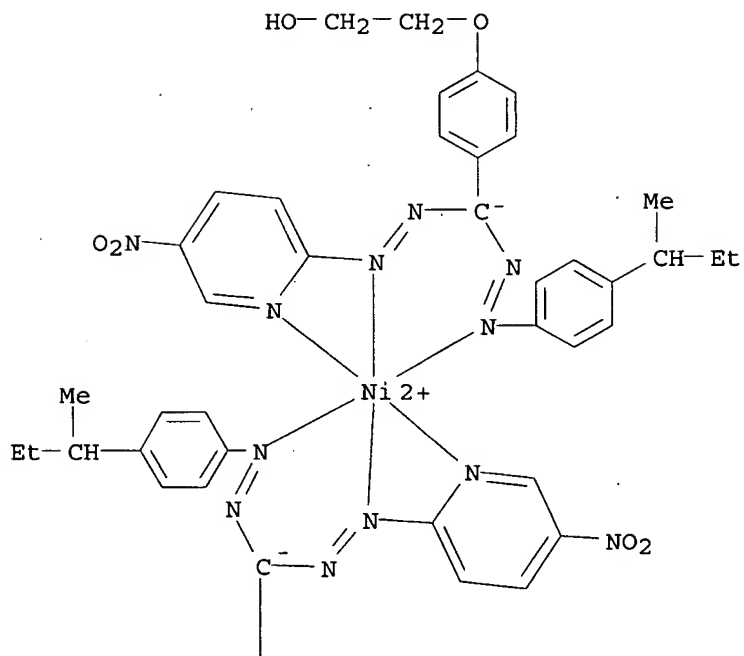
CM 1

CRN 186775-07-5

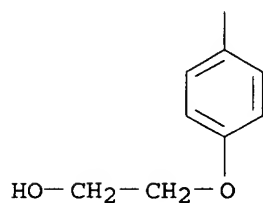
CMF C48 H50 N12 Ni O8

CCI CCS

PAGE 1-A



PAGE 2-A



CM 2

CRN 4538-37-8

CMF C6 H8 N2 O2

OCN-(CH₂)₄-NCO

CM 3

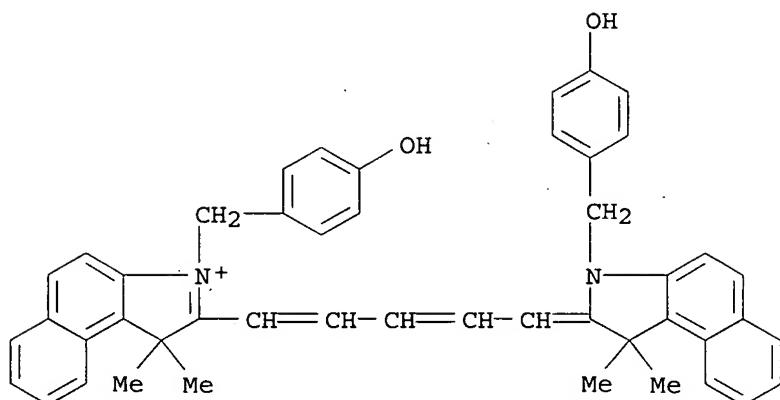
CRN 186775-11-1

CMF C47 H43 N2 O2 . C F3 O3 S

CM 4

CRN 186775-10-0

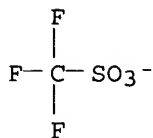
CMF C47 H43 N2 O2



CM 5

CRN 37181-39-8

CMF C F3 O3 S



RN 186775-13-3 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with bis[2-[4-[[[4-(2-methylpropyl)phenyl]azo-κN2][(5-nitro-2-pyridinyl-κN)azo-κN2]methyl]phenoxy]ethanolato]nickel and 1,4-diisocyanatobutane (9CI) (CA INDEX NAME)

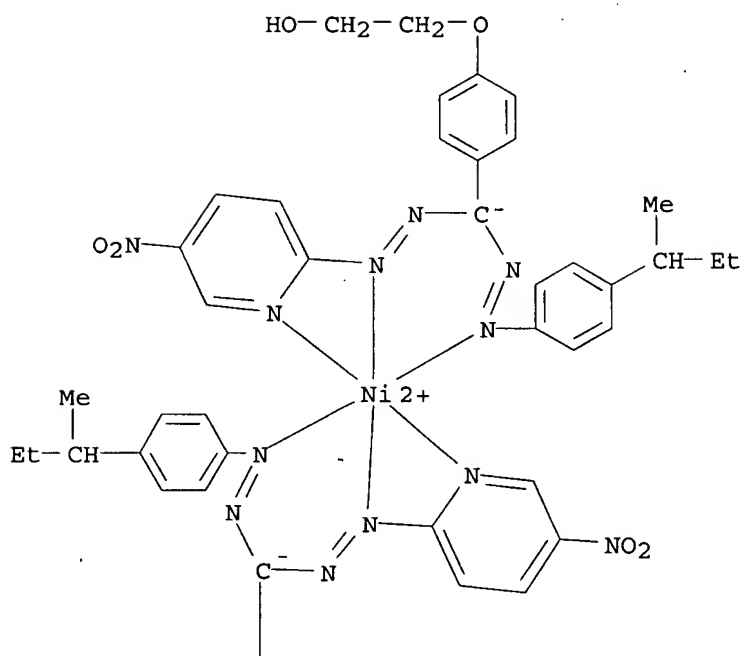
CM 1

CRN 186775-07-5

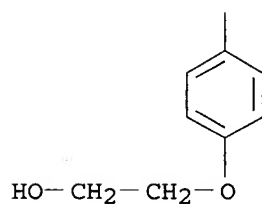
CMF C48 H50 N12 Ni O8

CCI CCS

PAGE 1-A



PAGE 2-A



CM 2

CRN 4538-37-8
CMF C6 H8 N2 O2

OCN-(CH₂)₄-NCO

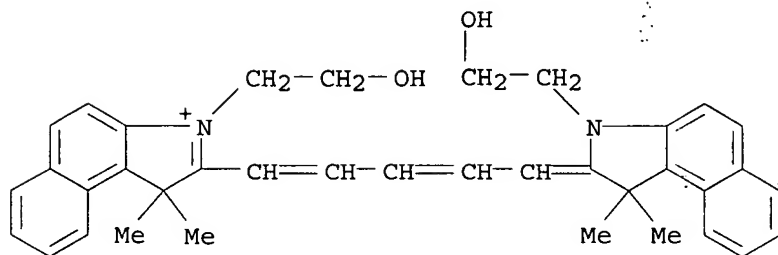
CM 3

CRN 186523-83-1
CMF C37 H39 N2 O2 . C F3 O3 S

CM 4

CRN 186523-82-0

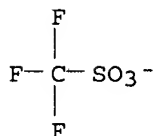
CMF C37 H39 N2 O2



CM 5

CRN 37181-39-8

CMF C F3 O3 S



RN 186775-14-4 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, salt with trifluoromethanesulfonic acid (1:1), polymer with bis[4-[[[(5-nitro-2-pyridinyl-κN)azo-κN2][2-(2-propenyloxy)phenyl]methyl]azo-κN1]benzeneethanolato]nickel and 1,4-diisocyanatobutane (9CI) (CA INDEX NAME)

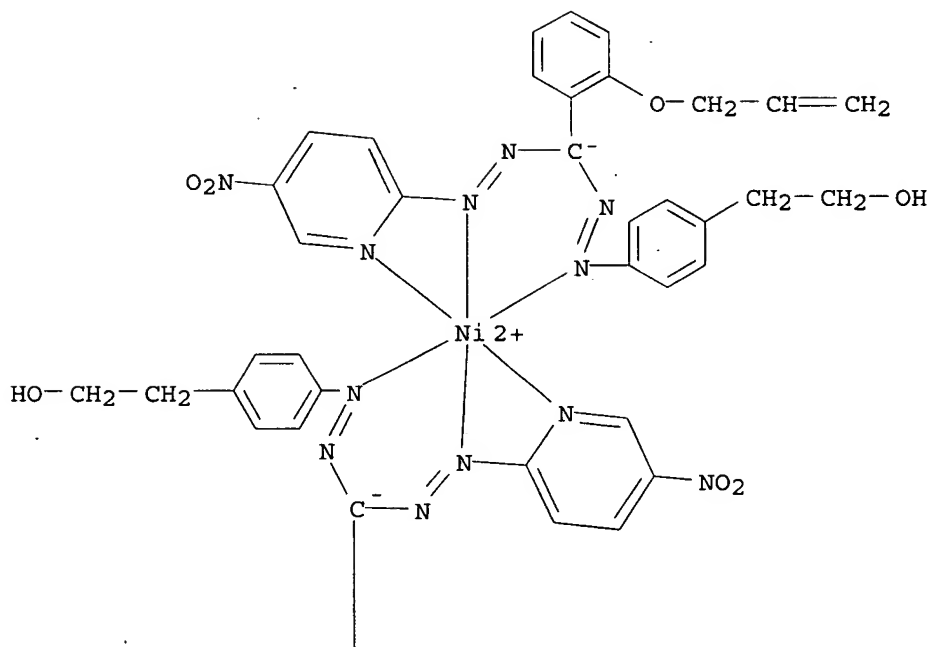
CM 1

CRN 186775-05-3

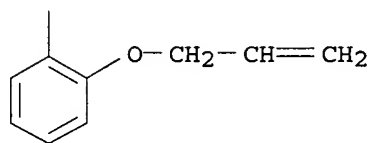
CMF C46 H42 N12 Ni O8

CCI CCS

PAGE 1-A



PAGE 2-A



CM 2

CRN 4538-37-8
CMF C6 H8 N2 O2

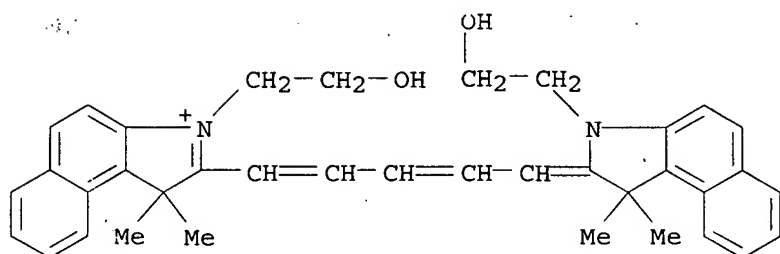
OCN-(CH₂)₄-NCO

CM 3

CRN 186523-83-1
CMF C37 H39 N2 O2 . C F3 O3 S

CM 4

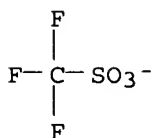
CRN 186523-82-0
CMF C37 H39 N2 O2



CM 5

CRN 37181-39-8

CMF C F3 O3 S



IC C09B069-10; G11B007-24
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT **Optical recording materials**
 (transition metal formazan complex-cyanine dye copolymers for optical recording layers of compact disks)
 IT **186775-08-6P 186775-09-7P**
 (transition metal formazan complex-cyanine dye copolymers for optical recording layers of compact disks)
 IT **186775-12-2 186775-13-3 186775-14-4**
 (transition metal formazan complex-cyanine dye copolymers for optical recording layers of compact disks)

L43 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:594383 HCAPLUS

DOCUMENT NUMBER: 123:145721

TITLE: Tagging thermoplastic materials by incorporation with near-infrared fluorophores

INVENTOR(S): Krutak, James J.; Cushman, Michael R.; Coates, Clarence A.; Parham, William W.; Weaver, Max A.; Patonay, Gabor

PATENT ASSIGNEE(S): Eastman Chemical Co., USA

SOURCE: U.S., 25 pp. Cont.-in-part of U.S. Ser. No. 789,510.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5397819	A	19950314	US 1993-156746	19931124

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EP 700961	A2	19960313	EP 1995-117613	19921013
			<--	
EP 700961	A3	19960410		
EP 700961	B1	19981223		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, SE				
AT 146503	T	19970115	AT 1992-921705	19921013
			<--	
ES 2095494	T3	19970216	ES 1992-921705	19921013
			<--	
CA 2121507	C	19980616	CA 1992-2121507	19921013
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EP 875505	A2	19981104	EP 1998-110896	19921013
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, IE				
AT 174942	T	19990115	AT 1995-117613	19921013
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ES 2127455	T3	19990416	ES 1995-117613	19921013
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JP 2003176289	A	20030624	JP 2002-338460	19921013
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US 5461136	A	19951024	US 1994-265904	19940624
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US 5553714	A	19960910	US 1994-339318	19941114
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US 5703229	A	19971230	US 1996-609011	19960229
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PRIORITY APPLN. INFO.:			US 1991-789570	A2 19911108
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			EP 1992-921705	A3 19921013
			<--	
			EP 1995-117613	A3 19921013
			<--	
			JP 1993-508427	A3 19921013
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			US 1993-156746	A3 19931124
			<--	
			US 1994-243033	B1 19940516
			<--	

OTHER SOURCE(S): MARPAT 123:145721

ED Entered STN: 08 Jun 1995

AB The method for tagging thermoplastic containers use near IR fluorescing compds. or copolymd. residues that are readily detected. New compds. useful as near IR fluorophoric markers are prepared. The methods and compds. provide a total system useful for marking, for identification purposes, the various classes of thermoplastic wastes, so that they can be identified, sorted, and subsequently recycled.

IT 154587-94-7P 154587-95-8P

(tagging thermoplastic materials by incorporation with near-IR fluorophores)

RN 154587-94-7 HCAPLUS

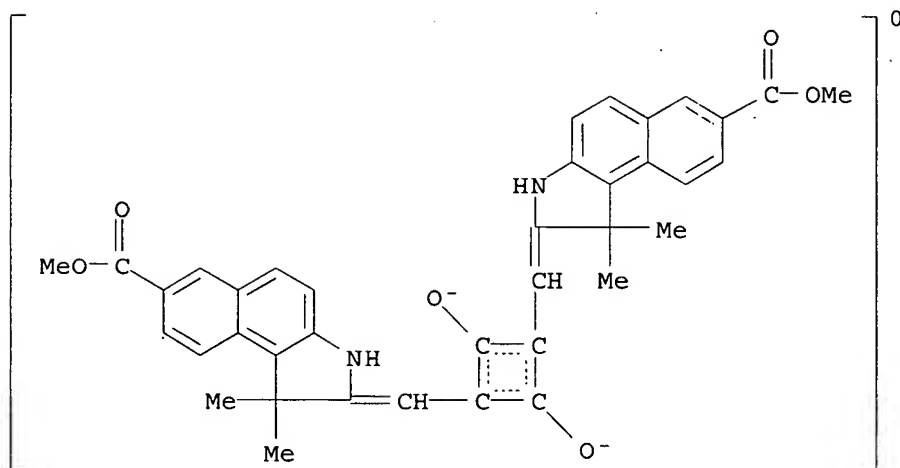
CN Cyclobutenediylum, 1,3-bis[[1,3-dihydro-7-(methoxycarbonyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]methyl]-2,4-dihydroxy-, bis(inner salt), polymer with 1,4-butanediol and dimethyl 1,4-benzenedicarboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 154587-93-6

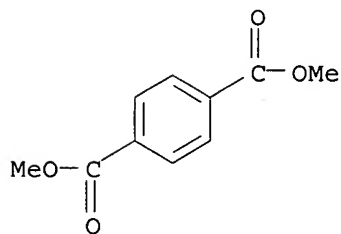
CMF C38 H32 N2 O6

CCI CCS



CM 2

CRN 120-61-6
CMF C10 H10 O4



CM 3

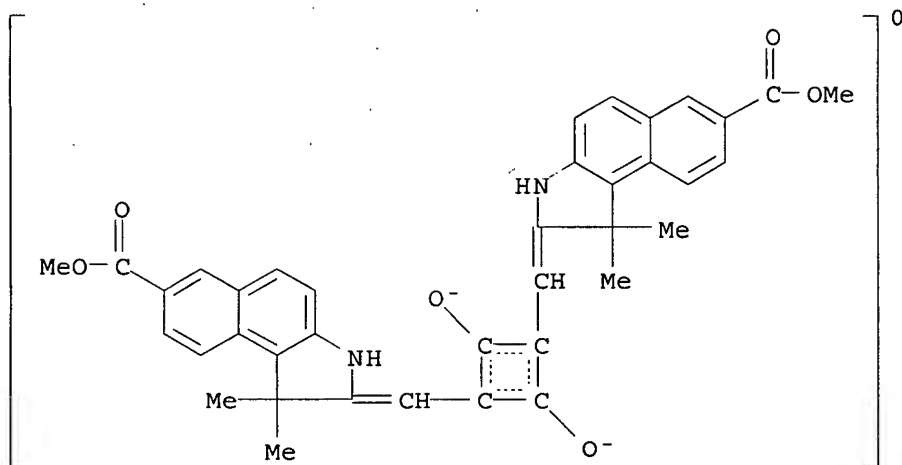
CRN 110-63-4
CMF C4 H10 O2

HO-(CH₂)₄-OH

RN 154587-95-8 HCAPLUS
CN Cyclobutenediylum, 1,3-bis[(1,3-dihydro-7-(methoxycarbonyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene)methyl]-2,4-dihydroxy-, bis(inner salt), polymer with dimethyl 1,4-benzenedicarboxylate and 2-methyl-1,3-propanediol (9CI) (CA INDEX NAME)

CM 1

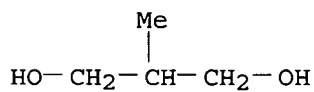
CRN 154587-93-6
CMF C38 H32 N2 O6
CCI CCS



CM 2

CRN 2163-42-0

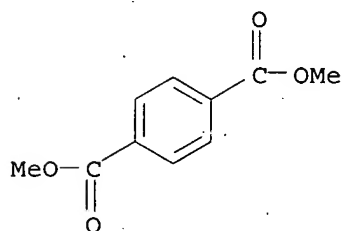
CMF C4 H10 O2



CM 3

CRN 120-61-6

CMF C10 H10 O4



IC ICM C08K005-34

INCL 524088000

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 25, 38

IT **Fluorescent substances**

(near IR; tagging thermoplastic materials by incorporation with near-IR fluorophores)

IT 104493-98-3P	154587-93-6P	154587-94-7P	
154587-95-8P	154755-44-9P	154755-45-0P	167093-11-0P
167093-13-2P	167093-14-3P	167093-15-4P	167093-16-5P
167093-18-7P	167093-19-8P	167093-20-1P	167093-21-2P

167093-22-3P 167093-24-5P 167093-25-6P 167093-26-7P
167093-27-8P 167093-28-9P
(tagging thermoplastic materials by incorporation with near-IR
fluorophores)

L43 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:617990 HCAPLUS

DOCUMENT NUMBER: 115:217990

TITLE: Novel third order nonlinear optical materials
composed of ionic polymers and chromophores

AUTHOR(S): Tomiyama, Hiromitsu; Okada, Shuji; Matsuda, Hiro;
Nakanishi, Hachiro

CORPORATE SOURCE: Cent. Res. Lab., Hodogaya Chem. Co., Ltd., Tokyo,
115, Japan

SOURCE: Proceedings of SPIE-The International Society for
Optical Engineering (1990),
1337(Nonlinear Opt. Prop. Org. Mater. 3), 170-7
CODEN: PSISDG; ISSN: 0277-786X

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 15 Nov 1991

AB The complex composed of ionic polymer and ionic dye was investigated
for third order nonlinear optics. The complexes were prepared by ion
exchange reaction between sulfonic group of the polymers and cationic
dyes. As cationic dyes, hemicyanines (HC-n), where n indicates the
number of double bonds between the aromatic rings, oxacyanine (OC-1) and
triphenylmethane derivs. were used. The dye content of the complex
could be controlled with in the range of 0.1-0.6 molar ratio of bound
dyes to the sulfonic groups by the composition of mixed solvents for the
reaction. The thin films of complexes were made by spin coating of
their CHCl₃/MeOH solution on fused quartz plates. They were transparent
and homogeneous with naked eyes and polarizing microscope. THG
measurements were performed by use of pumping laser light from 1.5 to
2.1 μm . $\chi(3)$ Values of every complexes were linearly
proportional to the dye content $\langle M \rangle$ (mmol/cm³). The
X(3) values of hemicyanine complexes became large at the pumping
wavelengths in resonant region of every dyes, and X(3) of HC-2 was
always larger than that of HC-1, whereas that of OC-1 with a sym.
structure was ten times smaller than that of HC-1. The largest
X(3) values attained at each maximum $\langle M \rangle$ and at the
pumping of 1.5 μm were 1.8×10^{-11} esu for HC-1, $2.4 \times$
 10^{-11} esu for HC-2 and 1.7×10^{-11} esu for Crystal Violet.
However, in the case of Malachite Green and Basic Cyanine 6GH, their
THG intensities were negligibly small even at resonant region.

IT 131825-80-4
(third-order nonlinear optical properties of)

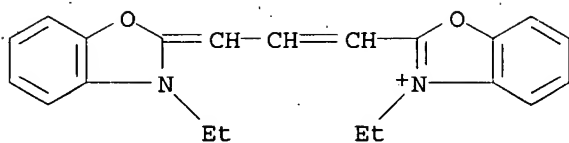
RN 131825-80-4 HCAPLUS

CN Benzoxazolium, 3-ethyl-2-[3-(3-ethyl-2(3H)-benzoxazolyli-
dene)-1-propenyl]-, iodide, compd. with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-
propanesulfonic acid monosodium salt homopolymer (9CI) (CA INDEX
NAME)

CM 1

CRN 905-96-4

CMF C21 H21 N2 O2 . I



● I⁻

CM 2

CRN 35641-59-9

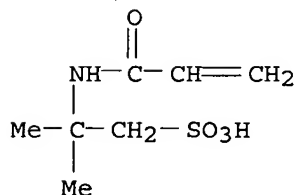
CMF (C7 H13 N O4 S . Na)x

CCI PMS

CM 3

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 36

IT **Optical materials**

(nonlinear, third order, composed of ionic polymers and chromophores)

IT 131825-77-9 131825-79-1 **131825-80-4** 131825-82-6
131825-83-7 131825-86-0 131825-87-1 131853-96-8 131895-95-9
133945-35-4

(third-order nonlinear optical properties of)

L43 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:493081 HCAPLUS

DOCUMENT NUMBER: 115:93081

TITLE: Oligomers containing carbocyanine/flexible chain segments as nonlinear optical materials

AUTHOR(S): Yu, Luping; Chen, Mai; Dalton, Larry R.

CORPORATE SOURCE: Dep. Chem., Univ. South. California, Los Angeles, CA, 90089-1062, USA

SOURCE: Polymer (1991), 32(8), 1369-75

CODEN: POLMAG; ISSN: 0032-3861

DOCUMENT TYPE: Journal

LANGUAGE: English

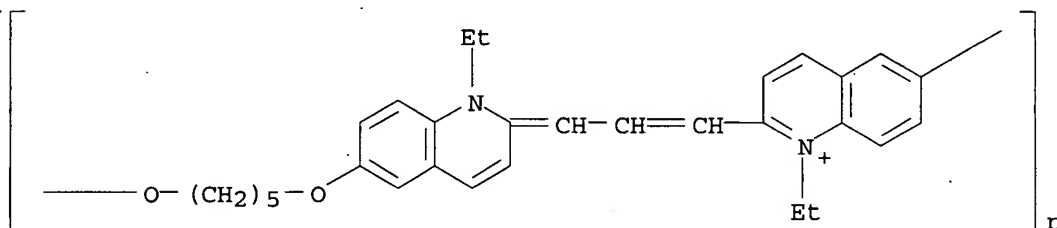
ED Entered STN: 06 Sep 1991

AB Oligomers containing carbocyanine units linked by flexible chain segments were prepared. The oligomers were cast into films and had improved miscibility with other host polymer matrixes compared to the simple carbocyanine mols. Degenerate 4-wave mixing (DFWM) measurements showed that a pure oligomer film had high optical nonlinearity, $\chi(3)/\alpha = 9.0 + 10^{-13}$ esu·cm at $\lambda = 532$ nm. The reaction of acidic protons in a quinolidine quaternary salt with di-Et squarate was utilized to synthesize a polymer. The polymer containing 13 repeat units, had a diffuse and strong absorption in the visible region and did not exhibit a detectable DFWM signal at 532 or 1064 nm.

IT 135072-99-0P
(oligomeric, preparation and nonlinear optical properties of)

RN 135072-99-0 HCAPLUS

CN Poly[(1-ethylquinolinium-6,2-diyl)-1-propen-1-yl-3-ylidene(1-ethyl-6-quinolinyl-2(1H)-ylidene)oxy-1,5-pentanedioxy iodide] (9CI) (CA INDEX NAME)



● I⁻

CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36

IT **Optical materials**
(nonlinear, carbocyanine-containing oligomers, preparation and characterization of)

IT 132271-82-0P 135072-99-0P
(oligomeric, preparation and nonlinear optical properties of)

=> d que 142

L2 8 SEA FILE=REGISTRY ABB=ON PLU=ON (110992-87-5/BI OR
 139361-79-8/BI OR 183745-01-9/BI OR 197087-00-6/BI OR
 259133-57-8/BI OR 442548-17-6/BI OR 442548-19-8/BI OR
 869557-67-5/BI) .
 L3 SCR 2043
 L5 SCR 1841 AND 1993 AND 2040
 L9 STR

Hy~~~~G1~~~~Hy
 1 2 3

Ak~Cb~Ak
 @4 5 @6

Ak~O~Ak
 @7 8 @9

Ak @10 A @14

Ak~G2~Ak
 @11 12 @13

VAR G1=10/4-1 6-3/7-1 9-3/11-1 13-3

REP G2=(1-10) 14

NODE ATTRIBUTES:

NSPEC IS RC AT 14

DEFAULT MLEVEL IS ATOM

GGCAT IS PCY UNS AT 1

GGCAT IS PCY UNS AT 3

GGCAT IS UNS AT 4

GGCAT IS UNS AT 6

GGCAT IS UNS AT 7

GGCAT IS UNS AT 9

GGCAT IS UNS AT 10

GGCAT IS UNS AT 11

GGCAT IS UNS AT 13

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 1

ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 3

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L12 164 SEA FILE=REGISTRY SSS FUL L9 AND L3 AND L5

L17 SCR 1993 AND 2040

L22 STR

Hy~~~~G1~~~~Hy
 1 2 3

Ak~Cb~Ak
 @4 5 @6

Ak @10

VAR G1=10/4-1 6-3

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS PCY UNS AT 1

GGCAT IS PCY UNS AT 3

DEFAULT ECLEVEL IS LIMITED

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ECOUNT IS M1 N M0-X1 O M0-X1 S M0-X1 Se AT 3

ECOUNT IS M5 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L25 210 SEA FILE=REGISTRY SSS FUL L22 AND L3 AND L17
L29 259 SEA FILE=REGISTRY ABB=ON PLU=ON L12 OR L25
L30 96 SEA FILE=HCAPLUS ABB=ON PLU=ON L29
L31 58 SEA FILE=HCAPLUS ABB=ON PLU=ON L2
L32 154 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 OR L31
L40 134 SEA FILE=HCAPLUS ABB=ON PLU=ON MITSUMOTO, T?/AU
L41 2095 SEA FILE=HCAPLUS ABB=ON PLU=ON NAKAMURA, I?/AU
L42 6 SEA FILE=HCAPLUS ABB=ON PLU=ON (L40 OR L41) AND L32

=> d 142 1-6 ibib ed abs fhitr hitind

L42 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1277470 HCAPLUS

DOCUMENT NUMBER: 143:485862

TITLE: Lithographic printing method and presensitized plate

INVENTOR(S): Mitsumoto, Tomoyoshi; Nakamura, Ippei

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 38 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004197701	A1	20041007	US 2004-809323	20040326
JP 2004306582	A	20041104	JP 2003-327659	20030919
JP 2005103968	A	20050421	JP 2003-341197	20030930
EP 1464486	A2	20041006	EP 2004-7456	20040326
EP 1464486	A3	20050810		
CN 1597313	A	20050323	CN 2004-10079734	20040917
PRIORITY APPLN. INFO.:			JP 2003-85166	A 20030326
			JP 2003-327659	A 20030919
			JP 2003-341197	A 20030930

OTHER SOURCE(S): MARPAT 143:485862

ED Entered STN: 06 Dec 2005

AB Disclosed is a presensitized plate composed of a support having thereon an image recording layer which includes: an IR absorber (A) that is a cyanine dye having at least one fused ring composed of a nitrogen-containing heterocycle in combination with an aromatic ring or a second heterocycle, and having on the aromatic ring or second heterocycle an electron-withdrawing group or a heavy atom-containing group, a radical generator (B), and a radical-polymerizable compound (C), and which is removable with printing ink and/or dampening water. The presensitized of the present invention can be imaged with an IR light-emitting laser to directly record an image from digital data on a computer or the like and is then subjected to on-machine development without carrying out a development step, which is capable of providing a large number of good impressions with a practical amount of energy.

IT 110992-87-5

(IR absorber; lithog. printing method and presensitized plate containing)

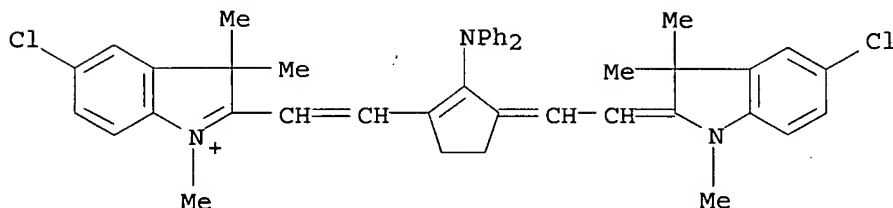
RN 110992-87-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 110992-86-4

CMF C43 H42 Cl2 N3

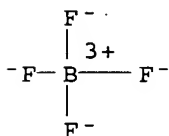


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03C001-76

INCL 430270100; 430197000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 110992-87-5 139361-79-8 183745-01-9

197087-00-6 259133-57-8 442548-17-6

442548-19-8 869557-67-5

(IR absorber; lithog. printing method and presensitized plate containing)

L42 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:632374 HCAPLUS

DOCUMENT NUMBER: 141:164864

TITLE: Positive-working presensitized lithographic plates for direct heat-mode IR laser platemaking

INVENTOR(S): Nakamura, Ippei

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004219650	A	20040805	JP 2003-6093	20030114
US 2004157152	A1	20040812	US 2004-754511	20040112
PRIORITY APPLN. INFO.:			JP 2003-6093	A 20030114

ED Entered STN: 06 Aug 2004

AB The lithog. plate comprises, successively from the bottom, a support, first layer mainly containing alkali-soluble polymers, and second layer mainly containing alkali-soluble polymers different from those in the first layer, wherein mixts. of ≥ 2 kinds of IR-absorbing agents are included in either or both the first and second layer. Preferably, one IR-absorbing agents and another IR-absorbing agents show maximum absorption at ≥ 825 nm, and < 825 nm, resp. The plate shows high sensitivity independent of exposure wavelength, and wide development latitude.

IT 442548-17-6

(IR-absorbing dyes; in pos.-working presensitized lithog. plates containing photoimaging layers containing polymethyne dyes for direct heat-mode IR laser platemaking)

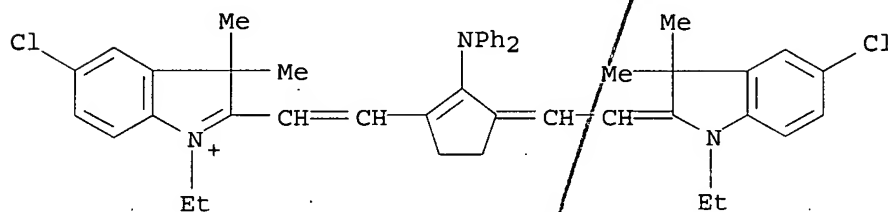
RN 442548-17-6 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9Cl) (CA INDEX NAME)

CM 1

CRN 162717-38-6

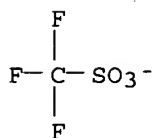
CMF C45 H46 Cl2 N3



CM 2

CRN 37181-39-8

CMF C F3 O3 S



IC ICM G03F007-004
ICS G03F007-00; G03F007-095; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 56289-67-9 69415-30-1 106897-67-0 134127-48-3 162411-29-2
162717-39-7 201024-57-9 205744-92-9 212964-63-1 244606-76-6
303965-99-3 335384-21-9 442548-17-6 728043-82-1
728043-83-2 728043-84-3 728043-86-5 728043-87-6
(IR-absorbing dyes; in pos.-working presensitized lithog. plates containing photoimaging layers containing polymethyne dyes for direct heat-mode IR laser platemaking)

L42 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:307718 HCAPLUS

DOCUMENT NUMBER: 140:347550

TITLE: Infrared laser-sensitive lithographic plate

INVENTOR(S): Nakamura, Ippei; Iwato, Kaoru; Sakata, Itaru

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 41 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004117547	A	20040415	JP 2002-277667	20020924
PRIORITY APPLN. INFO.:			JP 2002-277667	20020924

OTHER SOURCE(S): MARPAT 140:347550

ED Entered STN: 15 Apr 2004

AB The material comprises a support successively having thereon (1) first layer mainly containing an alkali soluble resin and (2) second layer containing an alkali-soluble resin different from that in the first layer and a polymethine dye with an amino group substituted on a polymethine chain. It shows high sensitivity and improved development latitude.

IT 442548-17-6
(IR absorbing dye; presensitized lithog. plate with alkali-soluble resin layer and polymethine dye-containing layer)

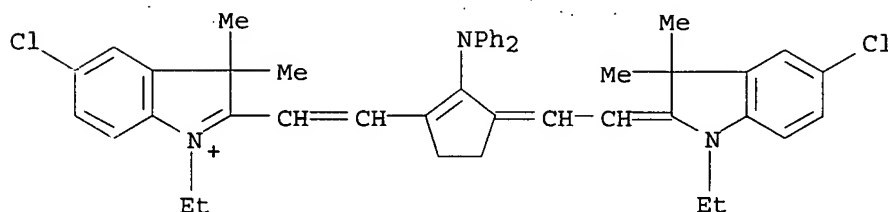
RN 442548-17-6 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 162717-38-6

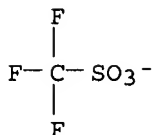
CMF C45 H46 Cl2 N3



CM 2

CRN 37181-39-8

CMF C F3 O3 S



IC ICM G03F007-004
ICS G03F007-00; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41
IT 26529-10-2 54849-63-7 155081-50-8 177167-90-7 177167-98-5
213621-38-6 401903-29-5 442548-17-6 680195-45-3
680195-46-4 680195-47-5 680195-49-7 680195-51-1 680195-52-2
(IR absorbing dye; presensitized lithog. plate with alkali-soluble resin layer and polymethine dye-containing layer)

L42 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:538139 HCAPLUS

DOCUMENT NUMBER: 137:95168

TITLE: Negative image-recording materials and cyanine dyes therefor

INVENTOR(S): Nakamura, Ippei; Sorori, Tadahiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 55 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1223196	A2	20020717	EP 2002-267	20020115
EP 1223196	A3	20030226		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002278057	A	20020927	JP 2001-237840	20010806
CN 1372166	A	20021002	CN 2002-105262	20020115
US 2003022094	A1	20030130	US 2002-44959	20020115
US 6797449	B2	20040928		

PRIORITY APPLN. INFO.:

JP 2001-6326

A 20010115

JP 2001-237840

A 20010806

OTHER SOURCE(S): MARPAT 137:95168

ED Entered STN: 19 Jul 2002

AB The invention provides a neg. image-recording material for heat-mode exposure systems, which comprises (A) an IR-absorbing cyanine dye having an electron-withdrawing group or a heavy atom-containing substituent in at least one terminal aromatic ring, (B) a radical generator, and (C) a radically polymerizable compound, and which is imagewise exposed to IR rays for image formation thereon. The invention is applicable to the production of planog. printing plates capable of generating a large number of prints. In an example, an IR-absorbing cyanine dye was prepared from 5-chloro-1-ethyl-2,3,3-trimethyl-3H-indolium iodide and N-[2,5-bis[(phenylamino)methylene]cyclopentylidene]-N-phenylbenzenaminium tetrafluoroborate (2:1). The dye was used in conjunction with dipentaerythritol hexaacrylate and allyl methacrylate-methacrylic acid copolymer in addition to a diaryliodonium tosylate radical generator for production of planog. printing plates.

IT 442548-19-8

(IR-absorbing cyanine dyes for neg. image-recording materials)

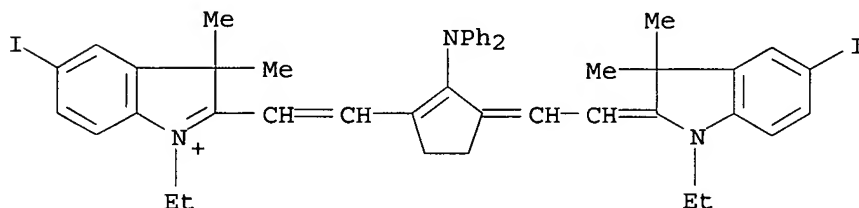
RN 442548-19-8 HCAPLUS

CN 3H-Indolium, 2-[2-[2-(diphenylamino)-3-[(1-ethyl-1,3-dihydro-5-iodo-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1-ethyl-5-iodo-3,3-dimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 442548-18-7

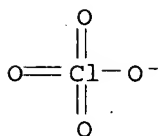
CMF C45 H46 I2 N3



CM 2

CRN 14797-73-0

CMF Cl O4



IC ICM C09B023-00

ICS G03F007-004; B41C001-10; C07D209-10

CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)
Section cross-reference(s): 74
IT 110992-90-0 442548-19-8 442548-21-2
(IR-absorbing cyanine dyes for neg. image-recording materials)
IT 442548-17-6P
(dye; IR-absorbing cyanine dyes for neg. image-recording materials)

L42 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:183769 HCAPLUS
DOCUMENT NUMBER: 136:239108
TITLE: Negative image-recording material
INVENTOR(S): Nakamura, Ippei; Sorori, Tadahiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 36 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1186407	A1	20020313	EP 2001-120729	20010905
EP 1186407	B1	20061227		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR				
JP 2002082429	A	20020322	JP 2000-273429	20000908
US 2002051934	A1	20020502	US 2001-928447	20010814
US 6733948	B2	20040511		
AT 349321	T	20070115	AT 2001-120729	20010905
PRIORITY APPLN. INFO.:			JP 2000-273429	A 20000908

ED Entered STN: 15 Mar 2002

AB This invention disclosed a neg. image-recording material which can be
imagewise exposed to IR radiation from IR lasers and ensures direct
image formation from digital data of a computer or the like. The
material, when used in a lithog. printing plate, ensures good
hardenability in an. image area and exhibits good printing durability,
even when not heated for image formation, and ensures a large number of
good prints from the printing plate. The recording material contains
(A) an IR absorber, (B) a radical generator having an onium salt
structure, (C) a radical-polymerizing compound, and (D) a reducing additive.

IT 197087-00-6
(IR absorber in neg. image-recording material)

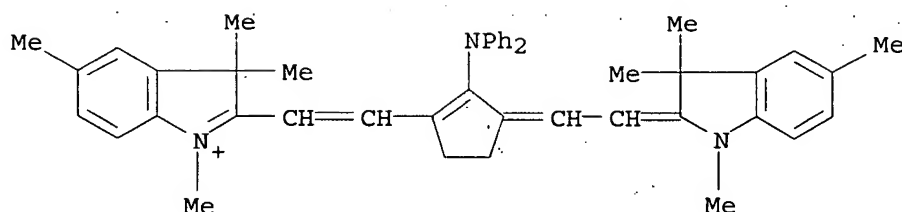
RN 197087-00-6 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3,5-tetramethyl-2H-indol-2-
ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-
1,3,3,5-tetramethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 183745-00-8

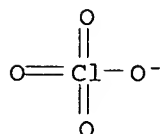
CMF C45 H48 N3



CM 2

CRN 14797-73-0

CMF C1 O4



IC ICM B41C001-10

ICS B41M005-36

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

IT 134127-48-3 197087-00-6

(IR absorber in neg. image-recording material)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L42 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:101172 HCAPLUS

DOCUMENT NUMBER: 136:158877

TITLE: Heat-mode negative-working image-recording
material and methods of forming image

INVENTOR(S) : Nakamura, Ippei; Sorori, Tadahiro

PATENT ASSIGNEE(S) : Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002040638	A	20020206	JP 2000-224031	20000725
US 2002045128	A1	20020418	US 2001-899123	20010706
US 6770422	B2	20040803		
CN 1334490	A	20020206	CN 2001-120322	20010724
EP 1176007	A2	20020130	EP 2001-117666	20010725
EP 1176007	A3	20040317		
EP 1176007	B1	20070307		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

AT 355967
PRIORITY APPLN. INFO.:

20070315

AT 2001-117666

20010725

JP 2000-224031

A 20000725

ED Entered STN: 06 Feb 2002

AB The invention relates to a heat-mode neg.-working image-recording material which can be directly recorded using an IR laser in a manufacture of a lithog. printing plate. The heat-mode neg.-working image-recording material such as a lithog. printing plate comprises (1) an IR absorber having an oxidation potential 0.45V (vs. SCE), (2) a thermal radical generator such as an onium salt, and (3) a radically polymerizable compound. The process involving the development of above recording material by an alkaline solution having $10.5 \leq \text{pH} \leq 12.5$ is also claimed.

IT 139361-79-8

(IR absorber; heat-mode neg.-working image-recording material from)

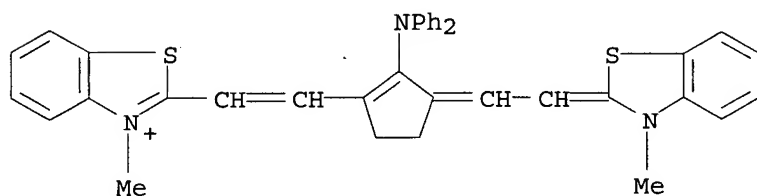
RN 139361-79-8 HCAPLUS

CN Benzothiazolium, 2-[2-[2-(diphenylamino)-3-[(3-methyl-2(3H)-benzothiazolylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-3-methyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 139361-78-7

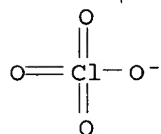
CMF C37 H32 N3 S2



CM 2

CRN 14797-73-0

CMF Cl O4



IC ICM G03F007-004

ICS B41N001-14; G03F007-00; G03F007-027; G03F007-029; G03F007-32

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 139361-79-8 183745-01-9 197087-00-6

259133-57-8 394211-02-0

(IR absorber; heat-mode neg.-working image-recording material from)

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(FILE 'HOME' ENTERED AT 08:15:43 ON 12 APR 2007)

FILE 'HCAPLUS' ENTERED AT 08:15:52 ON 12 APR 2007

L1 1 SEA ABB=ON PLU=ON US20040197701/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 08:16:09 ON 12 APR 2007

L2 8 SEA ABB=ON PLU=ON (110992-87-5/BI OR 139361-79-8/BI OR
183745-01-9/BI OR 197087-00-6/BI OR 259133-57-8/BI OR
442548-17-6/BI OR 442548-19-8/BI OR 869557-67-5/BI)
ACT LEE323/A
L3 SCR 2043
L4 STR
L5 SCR 1841 AND 1993 AND 2040
L6 9 SEA SSS SAM L4 AND L3 AND L5
L7 STR L4
L8 2 SEA SSS SAM L4
L9 STR L7
L10 2 SEA SSS SAM L9
L11 10 SEA SSS SAM L9 AND L3 AND L5
L12 164 SEA SSS FUL L9 AND L3 AND L5
SAV L12 LEE323A/A
L13 0 SEA ABB=ON PLU=ON L12 AND L2
L14 STR L9
L15 8 SEA SSS SAM L14
L16 22 SEA SSS SAM L14 AND L3 AND L5
L17 SCR 1993 AND 2040
L18 10 SEA SSS SAM L9 AND L3 AND L17
L19 STR L7
L20 6 SEA SSS SAM L19
L21 16 SEA SSS SAM L19 AND L3
L22 STR L19
L23 1 SEA SSS SAM L22 AND L3
L24 9 SEA SSS SAM L22 AND L3 AND L17
L25 210 SEA SSS FUL L22 AND L3 AND L17
L26 35 SEA SSS SAM L9 AND L17
L27 50 SEA SSS SAM L9 AND L5
L28 115 SEA ABB=ON PLU=ON L12 AND L25
L29 259 SEA ABB=ON PLU=ON L12 OR L25

FILE 'HCAPLUS' ENTERED AT 08:50:20 ON 12 APR 2007

L30 96 SEA ABB=ON PLU=ON L29
L31 58 SEA ABB=ON PLU=ON L2
L32 154 SEA ABB=ON PLU=ON L30 OR L31
L33 135 SEA ABB=ON PLU=ON L32 AND (1840-2003)/PRY,AY,PY
E LITHOGRAPHIC PLATES/CT
L34 12620 SEA ABB=ON PLU=ON "LITHOGRAPHIC PLATES"+PFT,NT/CT
E IR MATERIALS/CT
L35 1806 SEA ABB=ON PLU=ON "IR MATERIALS"+PFT,NT/CT
E OPTICAL MATERIALS/CT
L36 175232 SEA ABB=ON PLU=ON "OPTICAL MATERIALS"+PFT,NT/CT
L37 47 SEA ABB=ON PLU=ON L33 AND (L34 OR L35 OR L36)
L38 16 SEA ABB=ON PLU=ON L37 NOT L31
L39 49 SEA ABB=ON PLU=ON L31 AND (1840-2003)/PRY,AY,PY
L40 134 SEA ABB=ON PLU=ON MITSUMOTO, T?/AU
L41 2095 SEA ABB=ON PLU=ON NAKAMURA, I?/AU
L42 6 SEA ABB=ON PLU=ON (L40 OR L41) AND L32

10/809,323

10/809,323

Page 191

L43	16	SEA	ABB=ON	PLU=ON	L38	NOT	L42
L44	43	SEA	ABB=ON	PLU=ON	L39	NOT	L42